

AN EVALUATION OF A TEMPERAMENT-FOCUSED
PARENT-TRAINING PROGRAM

BY

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Child temperament has received increasing attention as a factor relevant to child development, parental adjustment, and family functioning. Due to the observed relationships between difficult child temperament and poorer functioning in each of these domains, there has been a call in the literature for temperament-based parent guidance. The goal of such programs is to improve the fit between parenting styles and children's temperament characteristics in order to alleviate the aforementioned difficulties. To date, however, empirical investigations of these programs are both sparse and methodologically weak. The current study examined the efficacy of a temperament-based, psychoeducational program for mothers with temperamentally difficult preschoolers.

The results indicated that relative to subjects in a wait-list control group, mothers who participated in the

parent-training group demonstrated improvements in affect, satisfaction with the parent-child relationship, and perceived parenting competence. Additionally, reductions in mother-rated child behavior problems were also observed. However, spousal relationships, feelings of being restricted by the demands of parenting, and father-rated child behavior did not demonstrate similar improvement. These results provide preliminary support for temperament-based parent-training.

INTRODUCTION

Child Temperament

Attention to child temperament as a factor relevant to the understanding of child development and family interactions has grown among both researchers and clinicians (Bates, 1987; Carey, 1990; Rutter, 1987). Recent interest in child temperament gained its impetus from the clinical research of the New York Longitudinal Study (Thomas, Chess, & Birch, 1968). These investigators defined temperament as the stylistic component of behavior. They identified nine dimensions of behavior which comprise child temperament: (a) activity level, (b) rhythmicity/regularity in biological functions, (c) approach vs withdrawal in response to new stimuli, (d) adaptability to new or changed situations, (e) threshold of responsiveness to stimuli, (f) intensity of reaction, (g) quality of mood, (h) distractibility, and (i) attention span/persistence. From five of these dimensions (regularity, approach/withdrawal, adaptability, intensity, and mood), three constellations of temperament were discerned: difficult, easy, and slow to warm up. These temperament characteristics and patterns are significant in that they have implications for both the ease with which children will adjust to their environment and the demands that caring for them will place on their parents. It is

notable that a great deal of research has been spawned by the Thomas and Chess conceptualization of temperament (Black, Gasparrini, & Nelson, 1981; Chess & Korn, 1970; Graham, Rutter, & George, 1973; Maurer, Cadoret, & Cain, 1985; McNeil & Persson-Blennow, 1982; Maziade, Caron, Cote, Boutin, & Thivierge, 1990).

Congruent with the expansion of interest in child temperament, however, the field has grown such that the literature currently features several prominent working models of child temperament (Bates, 1987; Goldsmith et al., 1987). This diversity of models is perhaps not surprising given the breadth of areas spanned by temperament researchers. As summarized by Bates (1987), these range from primarily biological foci as is seen for example, in Goldsmith and Campos' (Goldsmith et al., 1987) work on individual differences in emotional development through to the study of social processes such as parent-child interactions and the development of psychopathology (e.g., Chess and Thomas, 1984).

While maintaining sufficient similarity to fall under the conceptual rubric of temperament theories, the various models differ in several regards. Primary among these is the emphasis placed on biological and in particular, genetic, underpinnings of behavior. For example, while Buss and Plomin (1984) consider heritability to be critical to their conceptualization this is not true of all researchers (e.g., Campos and Goldsmith, cited in Goldsmith et al.,

1987). Similarly, while documenting the biological substrates of behavior is central to some theories (e.g., Rothbart and Derryberry, 1981) others have sufficed to make reference to the assumed constitutional basis of temperament characteristics (Thomas & Chess, 1977). The salience placed on the stability of temperament characteristics is another central area of disagreement; while some consider stability to be essential to the definition (e.g., Buss & Plomin, 1984) others have concluded that to the extent that behavior is multi-determined, it is only reasonable to expect that the expression of temperament characteristics will be altered as a function of environmental demands (Chess & Thomas, 1984). Finally, only limited consensus exists regarding the specific behavioral dimensions which define temperament; while most conceptualizations include the characteristics of activity level and emotionality, other dimensions vary across theories.

However, while even this very brief description illustrates the diversity of theoretical conceptualizations, most of the disagreement reflects a divergence on emphasis rather than content. In a general way there is consensus around several defining features of child temperament. As summarized by Goldsmith et al. (1987) there is agreement that temperamental dimensions reflect behavioral tendencies, address individual differences in behavior, are likely to have at least some biological component, and are expected to demonstrate a greater level of continuity than other aspects

of behavior. Additionally, while most researchers conceptualize temperament as theoretically being a "within-the-person" variable, there is recognition that as suggested by Rothbart (1982), temperament may more accurately be conceptualized as reflecting a "within-the-[person]-within-the-home" characteristic. This interpretation takes into account both the pragmatic consideration that assessment of temperament will be influenced by care-taker handling (Rothbart, 1982) and the more far-reaching possibility that the expression of temperament itself, may be modified by environmental factors (Plomin, 1984).

Child Adjustment and Parent-Child Interactions

A relationship between difficult temperament characteristics and child behavior problems, both concurrently and predictively, has been well-documented (Biederman et al., 1990; Cameron, 1977, 1978; Chess & Thomas, 1984; Earls & Jung, 1987; Johnson, Basham, & Gordon, 1982; Webster-Stratton & Eyberg, 1982; Wolkind & De Salis, 1982). A broad array of difficulties has been noted in children with difficult temperament characteristics including depression, anxiety, sleep disturbances, hyperactivity, and oppositional behavior styles. The literature suggests that several temperament characteristics may be operative in predicting child psychopathology. In particular, low distractibility/high persistence, low adaptability, low rhythmicity, and high intensity have been identified as substantial contributors (Earls, 1981;

Garrison, Earls, & Kindlon, 1984; Thomas & Chess, 1977). Other researchers have suggested that negative mood and high activity level/high distractibility may also be contributory (Terestman, 1980; Thomas & Chess, 1977; Turecki & Tonner, 1985; Webster-Stratton & Eyberg, 1982). Clearly, the specific temperament characteristics identified as predictive of behavior problems has varied across studies. It is likely that this a function of both the nature of the assessment measures and the typology of behavior problems being studied. In fact, recent studies have begun to document specificity in the relationships between temperament characteristics and the nature of behavior disorders (Bates, 1990; Maziade et al., 1990).

It has been suggested that the relationship between difficult temperament and behavior problems may be mediated by the quality of parent-child interactions (e.g., Chess & Thomas, 1984). This is notable in that significant to the concept of child temperament is the implication that children possess traits that will influence both the way they respond to the world and the way others, particularly their parents, will respond to them. Numerous studies have demonstrated that both the quantity and quality of parental interaction with children are related to child temperament characteristics (Campbell, 1979; Chess & Thomas, 1984; Frankel & Bates, 1990; Gordon, 1983; Hinde, Easton, Meller, & Tamplin, 1982; Klein, 1984; Stevenson-Hinde & Simpson, 1982). For example, one study (Webster-Stratton & Eyberg,

1982) found that mothers of active, low attention children demonstrated more negative affect as well as more non-accepting and submissive behavior than did other mothers. Moreover, Lee and Bates (1985) demonstrated that toddlers with difficult temperament characteristics were more likely to have conflictual interactions with their mothers. These investigators proposed that these interactions, similar to the coercive pattern described by Patterson (1982), may be a manifestation of the proposition that conflict between parent and child due to mismatch between child temperament and parental rearing techniques could increase the likelihood of later behavior problems.

Several theorists have suggested that it is this "goodness of fit", or the "match" between the child's characteristics and those of the parents, which will determine the level of stress in the interaction as well as the potential for behavior problems (Belsky, Lerner, & Spanier, 1984; Lerner, Baker, & Lerner, 1985; Thomas & Chess, 1977). A good match is construed as one in which the demands of the environment are congruent with the child's capabilities and sufficiently flexible to accommodate his or her difficulties. Variance in parental response to the child will be reflected in his or her development and may serve to either alleviate or aggravate the potential for behavior problems (Cameron, 1978; Chess & Thomas, 1984; Maziade et al., 1985; Thomas & Chess, 1977). For example, Korn and Gannon (1983) have reported that difficult child

temperament was less predictive of behavior problems in a working-class Puerto Rican sample than in an age and sex matched sample of white, middle class families; these investigators suggested that these differences reflected the differential demands made on the children in the two cultures.

However, it should be noted that a good match does not imply a one to one correspondence between parent and child temperament. For example, the interaction between a parent and child both of whom have intense, negative moods, would not have the promise of being particularly smooth. Given a parent who's behavior is rigid, demanding or inconsistent, an easy child may be more able than a difficult child, to adapt without major strains. A difficult child who is less regular and slower to adapt may require more parental flexibility. An additional point is that a good fit should not be construed to entail the absence of stress. It is the excessive stress produced by a poor fit which is considered to be problematic within this model (Thomas and Chess, 1977).

Maternal Adjustment and Family Functioning

Although the relationship between parent and child has been described as one of reciprocal influence, the work cited thus far has focused primarily on the child's development. In line with the interactionist perspective which emphasizes the bidirectional nature of influence, several investigators have begun to focus on the

relationship between child temperament and parental adjustment. In particular, it has been suggested that parents of difficult children may experience a variety of interpersonal and psychological difficulties.

The original work in this field was conducted by Thomas and Chess (1977). Based on clinical contact with parents and children as part of the NYLS, these investigators elucidated a range of difficulties that parent of temperamentally difficult children appeared to experience. These included feeling threatened, anxious, and inadequate as parents as well as being intimidated by the child's behavior, resentful of the demands of parenting, and blaming of the child. These researchers suggested, moreover, that the relationship between child temperament and parental adjustment may be mediated by the parents own characteristics: parents whose own temperaments render them less adaptable may be more vulnerable to these experiences.

Several studies have begun to delineate the psychological difficulties that differentiate parents of difficult children from their cohorts with easier children. The most consistent findings in the earlier literature in this area, appear to be an increased incidence of depression (Cutrona & Troutman, 1986; Ventura, 1982; Wolkind and De Salis, 1982) and anxiety (Ventura, 1982; Wolkind and De Salis, 1982) in mothers of difficult infants. Decreased marital satisfaction was also noted by Wolkind and De Salis (1982). Studying a sample of mothers with preschool

children, Stevenson-Hinde and Simpson (1982) found that child temperament was related to both anxiety and irritability but not to depression.

Recently, Sheeber and Johnson (1991a) provided a more in depth analysis of the relationship between child temperament and maternal adjustment. These investigators reported that mothers of temperamentally difficult preschool children demonstrated more psychosocial difficulties than did mothers of easier children. In accordance with the majority of the previously cited work, the results indicated that these mothers were more prone to anxiety and depression. Additionally, they reported experiencing more doubts regarding their competence as parents, feeling less emotional closeness to their children, and finding parenting to be more restrictive. Difficult child temperament was also found to be related to more life style changes and alterations of daily family routines. Relatedly, these mothers reported greater marital discord especially as regards the absence of emotional and active support in child management. Contrary to expectation, the "mismatch" of mother and child temperament was not found to be additionally predictive of either maternal or familial difficulties.

The quality and intensity of child mood emerged in this study as the temperament characteristics most predictive of maternal and familial difficulties. High activity level, low distractibility, and irregularity were also clearly

operative. Excepting activity level, these dimensions are consistent with those found in the earlier studies (Stevenson-Hinde & Simpson, 1982; Ventura, 1982; Wolkind & De Salis, 1982). Turecki (Turecki & Tonner, 1985) reported that the combination of high activity level and high distractibility was also related to maternal difficulty.

The reliance on maternal reports for obtaining indices of both child temperament and maternal/familial adjustment is a potential limitation of the work in this area. In particular, the issue arises of the degree to which maternal adjustment and temperament may bias child temperament ratings so as to account for the significant findings. However, this potential bias was controlled for methodologically in several of these studies via either pre-study assessment of maternal adjustment (Cutrona & Troutman, 1986; Wolkind & De Salis, 1982) and/or the utilization of alternative measures of temperament (Cutrona & Troutman, 1986; Sheeber & Johnson, 1991a). The results therefore suggest that a relationship exists between child temperament and maternal adjustment independent of the potential contribution of distortions in temperament ratings due to maternal maladjustment.

Finally, it has been suggested that these parental difficulties will be fed back into the parent-child system, interfering with successful parenting and serving to perpetuate a cycle of dysfunctional interactions. Thomas and Chess (1977) maintain that a parent who is experiencing

any of the previously described difficulties cannot provide the patient, gradual exposure to new situations and demands that a difficult child requires. They are more likely to pressure, appease or vacillate, all the while expressing feelings of hostility, impatience, and confusion. It is felt that this can lead to increasing difficulty on the part of the child. These cautions become more potent when considered in conjunction with the previously discussed data regarding parent-child interactions, findings that child temperament interacted with maternal depression (Wolkind & De Salis, 1982) and maternal role-satisfaction (Lerner & Galambos, 1985) in contributing to the development of behavior problems, and evidence suggesting that difficult children are more likely to be victims of parental abuse than are their easier cohorts (Johnson, Floyd, & Isleib, 1983).

Temperament-Based Parent Guidance

In light of the observed relationships between child temperament and a broad range of difficulties in the areas of parental adjustment, parent-child interactions, and the development of child behavior problems several investigators have recommended the development of temperament-based parent guidance programs for parents of temperamentally difficult children (Cameron & Rice, 1986; Carey, 1982; Thomas & Chess, 1977; Turecki & Tonner, 1985). These investigators suggest that such programs may serve to alleviate and/or prevent the development of the aforementioned problems. In particular,

it has been proposed that such programs could reduce the level of negative parental affect and facilitate more effective and positive parent-child interactions.

Additionally, guidance could serve to reduce problem child behaviors that may have developed, in part, as a function of a poor fit between parenting style and child temperament characteristics.

The conceptual framework for temperament-focused parent training programs is rooted in the goodness-of-fit model described earlier. In accordance with this model, the primary goal of such programs is to reduce the excessive stress produced by a poor fit between environmental demands and child capabilities. As described by Lerner, Baker, and Lerner (1985) poorness of fit can be addressed by interventions directed either at the individual or contextual level. These investigators concur with Chess and Thomas (1984) in suggesting that in working with young children, the context, in the form of parental expectations, behavior, and attributions are the most viable target of intervention. To the extent that it is feasible, however, many clinicians advocate helping the child to recognize their behavioral patterns and develop techniques for adapting to situational demands (Chess & Thomas, 1986; Turecki & Tonner, 1985).

As originally formulated by Thomas and Chess (1977), temperament-focused parent training has two components. Initially, the focus is on acquainting parents with the

notion of temperament under the assumption that an appreciation of temperament as reflecting inborn characteristics of the child would serve to reduce their negative feelings and allow them to respond to their child with less anger and apprehension. During the second phase, the implications of temperament for child management are explored. In particular, training focuses on developing behavior management strategies which are congruent with the child's temperament characteristics. This general framework has been adopted to varying degrees by other clinicians although the extent to which both components are incorporated is variable.

At the present time, only a handful of temperament-based parent guidance programs have been reported in the literature. The first of these was described in the early work of Thomas, Chess, and Birch (1968). In this project, parent guidance was utilized for 42 cases in which a mismatch between child temperament and parenting styles was thought to be responsible for the development or maintenance of behavior problems. It is notable that this sample was not limited to difficult temperament children but rather included children demonstrating a range of temperament patterns. While the report of the program is largely anecdotal, several key features were emphasized. Primary among their recommendations is the necessity of an individualized program in which the details of parent and child behaviors contributing to the poor fit are identified

and alternative behaviors suggested to the parents. Secondly, parents are encouraged to distinguish temperament characteristics from parental attributions; for example, lack of persistence is not synonymous with laziness. Relatedly, parents are reassured that their parenting approach is not "bad" but just incongruent with this child's particular style. Finally, parental feelings associated with parenting difficulty are discussed.

The investigators reported an overall success rate of 50% for this sample and indicated that the degree of improvement was related both to the amount of behavioral change exhibited by the parents and to the child's temperament pattern. Slow-to-warm-up, easy, difficult, and persistent children demonstrated 100, 70, 60, and 33% improvement respectively. Distractible-nonpersistent children did not improve. The investigators attributed this latter finding to the reticence of urban middle-class parents to accept this behavior pattern as it appears incompatible with educational and occupational achievement.

Although the investigators are to be credited for their innovative work in applying the findings of temperament research to the alleviation of parent-child difficulties, methodological limitations preclude clear interpretation of their results. One major weakness in the design is the failure to utilize statistical analyses for their between group comparisons. It is, therefore, unclear whether the differential effectiveness of parent guidance for children

with dissimilar temperament patterns reflects actual group differences versus chance findings. This is a particular danger given the small sample size for each temperament pattern. For example, given that there were 10 difficult and 10 easy children the difference between the 60 and 70% effectiveness of treatment for the two groups is attributable to one child. A related problem is that the small sample size raises questions about the generalizability of the findings: are the behavior problems evidenced by distractible children actually less tractable or were these four children and their parents less open to change for reasons unrelated to the children's temperament characteristics? Finally, as the original sample was diverse as regards the types of behavior problems exhibited it would have been interesting if the investigators had examined whether some behaviors were more amenable to change than others.

An additional difficulty with this study is their sole reliance on clinical judgment for assessment of both initial behavior problems and changes in parental and child behavior. This is problematic both because of the potential for examiner bias and because of the difficulty it presents for the reader in attempting to understand the changes that have occurred. Additionally, the absence of a control group renders it difficult to interpret the behavioral changes as necessarily a function of treatment. Although the investigators report that their continuing clinical use of

parent guidance provides additional support for its efficacy (Chess & Thomas, 1986) it is unfortunate that they have not attempted to replicate their results in the two decades that have passed since this original study was completed.

More recently, Turecki (Turecki & Tonner, 1985) has expanded on this work from a solely clinical perspective. He has detailed a treatment program specifically designed for parents of temperamentally difficult children. Notable in his conceptualization is the movement away from a predetermined concept of "difficultness" toward a definition based on the parents' experience with the child. This approach is more in line with the goodness-of-fit model as it recognizes that different traits may be considered difficult by parents with varying characteristics, expectations, and values as well as in different situations or developmental stages. For instance, distractibility may be an asset in a young child whose attention can easily be pulled away from dangerous objects but may become stressful when the older child does not complete homework or chores. As described in The Difficult Child (Turecki & Tonner, 1985), the initial focus of the program is on providing a definition of temperament, detailing its explanatory function in understanding child behavior, and describing the parental feelings and family problems that may be associated with parenting a difficult child. The next part of the program is designed to help the parents identify both their child's specific temperament profile and the behavior

problems which may be expressions of it. The main goal of this component is to facilitate an unemotional evaluation of the child's behavior that is unencumbered by parental fears or attributions. Subsequent to this, the parents are taught a general approach to behavior management, techniques for dealing with temperamental issues, and ways of dealing with the family problems which may have, in part, developed as a function of the child's behavior. Finally, this program is supplemented by a parent support group to help the parents deal with the negative feelings associated with problems in parenting.

Presently, the remaining work in this area has become increasingly focused on anticipatory guidance. This work has been conducted in pediatric settings and has largely involved parents of infants. Carey (1982) discussed three ways in which the clinician can utilize temperament information to foster improved parent-child interactions. The least intrusive of these is an educational discussion in which the clinician provides the parent with information about normal individual differences. This approach, congruent with the first phase in Thomas and Chess's (1977) conceptualization, helps parents understand both that disagreeable behavior is not necessarily indicative of either poor parenting or child psychopathology and that the application of standard approaches to child rearing will not be equally successful with different children.

The second approach, recommended as a standard clinical procedure, is to identify the child's temperament profile via questionnaire techniques, interviews, and behavioral observations. This information may provide the parent with a more organized view of the child's behavior and thereby facilitate interactions which are more congruent with the child's temperament characteristics. Central to this approach is the avoidance of labels in favor of descriptive information when providing parents with feedback about their child's temperament style. Utilizing a similar method, although one based solely on screening with a temperament questionnaire, Little (1983) reported that 75% of the mothers receiving this information returned a brief survey in which they were asked to rate the utility of the information provided. Of these, 89.9% reported gaining a better understanding of their child, 87.3% considered this information to be worthwhile, and 57% reported that it changed their parenting.

The final level of intervention is the provision of guidance regarding alternative approaches to child management when it appears that a poor fit is responsible for stress in the parent-child interaction and the development of reactive symptoms. Carey emphasizes that intervention at this level requires the identification of stress in the relationship and not merely a difficult temperament profile; this is essential given that parental expectations for and approach to coping with child behavior

will moderate the impact of the child's temperament characteristics.

An alternative approach to utilizing temperament questionnaire information obtained in early infancy has been presented by Cameron and Rice (1986). Based on a review of the literature, they identified what they considered to be the most likely problems to arise at various stages of infancy for children with different temperament profiles. Written anticipatory guidance including a description of the two problems most likely to occur, reasons for their development, validation of the parental feelings likely to be associated with these difficulties, and management suggestions, was then mailed to the mothers. A notable feature of this work is the investigators' attempt to document the relationship between child temperament and specific behavior problems. The results of two studies indicated that various temperament profiles did predict the occurrence of distinct behavior problems as reported by mothers.¹ Unfortunately, the investigators did not report the amount of variance predicted by this model. Additionally, as only 48% and 67% of the mothers in the two samples provided information regarding the occurrence of problems it is unclear the extent to which this relationship is sample specific.

With regard to the utility of the program, the results of these studies were congruent with those reported by Little (1983). Of the 48% of mothers in the first sample

who returned a follow-up questionnaire, 90% reported that filling out the questionnaires was useful, 80% said the guidance material helped them to understand the behavior problems that occurred, and over 70% found the handling tips helpful. Perceived utility of the guidance materials was related to both the number of temperament related problems which occurred and the accuracy with which the emergence of behavior problems had been predicted by the early temperament data. The extent of these relationships is not reported for the first issue and is relatively small ($R=.13-.27$) for the latter.

Finally, the investigators report that guidance was most effective for those difficulties related to energy level in the fifth to eighth month (accident risk, assertiveness, mealtime, and sleep issues) and suggest that more extended counseling or peer support groups may be necessary for parents whose infants continue to develop temperament-related sensitivity and dependency issues in late infancy. However, the criteria used for making this evaluation are unclear.

Despite the apparent clinical utility of these programs, several difficulties exist in this literature. Firstly, methodological problems constrain the interpretability of the obtained results. One major limitation is the failure to adequately assess outcome. As reported earlier, Carey's discussion of the utility of temperament data did not address the need to demonstrate

effectiveness. While the other researchers (Cameron and Rice, 1986; Little, 1983) have explored this issue, they relied solely on maternal responses to broad surveys that have unassessed psychometric characteristics. Additionally, these investigators have not provided specific information regarding the manner in which the guidance was beneficial in either preventing the development or exacerbation of child behavior problems or in alleviating maternal concerns. Additionally, as the post-intervention assessments were completed by mail, the extent to which the reported success represents an overestimation based on a greater response rate from individuals who felt the guidance to be beneficial is unclear. Again, the absence of a control group in both of these studies hinders attempts to interpret the findings.

In addition to the methodological difficulties, concerns have been raised regarding the appropriateness of general screening and anticipatory guidance for temperament related problems. These concerns center around the risks involved¹ in labeling a child "difficult" in light of the limited utility of temperament ratings in early infancy for predicting either later temperament characteristics or the development of behavior problems (Rothbart, 1982). Rothbart (1982) suggests that identifying a child as difficult may both raise the expectations of problems where none have been identified and suggest the existence of risk and developmental continuity when in reality temperament characteristics are not equally difficult at different

stages. She suggests that it may be more beneficial to indicate that there are both positive and negative features associated with each temperament characteristic.

Cameron and Rice (1986) have responded to Rothbart's cautions by indicating that those working in pediatric settings are invariably called upon to offer handling advice in areas influenced by temperament characteristics. As such, they maintain that the question is not whether to provide this information, but rather how to most effectively do so. Additionally, it should be noted, that the use of descriptive rather than evaluative terms has also been addressed by advocates of anticipatory guidance (Carey, 1982). Nonetheless, the issue remains as to whether it is advisable to provide temperament screening and guidance as a matter of course as compared to the alternative of utilizing temperament data as part of an assessment when problems arise. To address this issue it will be necessary for researchers to more fully explore the potential benefits and risks associated with this approach.

This review of the relevant literature suggests that while temperament-based parent training programs are being increasingly advocated as a means of facilitating less stressful and more effective parenting, the work conducted to date does not provide adequate support for the utility of this approach. In particular, the failure to utilize standardized outcome measures to assess changes in parental adjustment, parent-child interaction, or child behavior

problems as well as the absence of control groups limits the conclusions that can be drawn from the available literature.

Specific Aims

Given both the potential utility of temperament-based parent training and the absence of adequate research support for such programs, the goal of the present study was to build on the existing clinical and theoretical base by empirically examining the efficacy of a temperament-based group parent training program. In particular, this investigation focused on evaluating the effectiveness of the program in alleviating maternal/familial difficulties and reducing the level of child behavior problems.

It was hypothesized that relative to a wait-list control group, subjects in the training group would demonstrate reductions in anxiety and depression, as well as increased comfort in the parenting role which involves perceived parenting competence, feelings of being restricted by the parenting role, satisfaction with the parent-child relationship, ability to understand the child's needs, and increased feelings of attachment to the child.

Additionally, improvement in child and family functioning including spousal relationships, changes in family lifestyle, and child behavior problems were also anticipated. Based on results obtained by Webster-Stratton and Eyberg (1982), however, significant changes in ratings of child temperament were not expected at posttreatment.

Secondary to the primary objective, a subgoal in this project involved more clearly relating the expected changes in adjustment to participation in the parent-training program. It was hypothesized in this regard, that the improved adjustment expected in the active condition would be accompanied by an increase in knowledge about child temperament. It was expected, moreover, that attendance at weekly meetings and completion of homework assignments would relate to successful outcomes.

METHODS

Subjects

Demographic Data

The sample was comprised of 40 mothers with preschool-age children. Two-thirds of the sample were recruited in Portland, OR, and the remaining subjects were recruited in Gainesville, FL. With two exceptions, all of the subjects were white. The target children ranged in age from 2-years 9-months to 5-years 6-months (mean age 4). Sixty percent of the children were male.

The majority of subjects were either married to or living with the child's father (87.5%). In these families, 88% of the fathers, including one step-father, participated in some portion of each assessment. In one family, the maternal grandmother served as a secondary caretaker and participated in the assessments. Additional demographic information is provided in Table 1.

Criteria for Participation

Criteria for participation in the study were difficult child temperament and the presence of reported maternal/familial difficulties related to parenting. For the purpose of subject selection, difficult child temperament was defined by the following temperament characteristics: negative mood, high intensity, low

Table 1

Demographic Information

Variable	Mean	Range
Mothers		
Age	34	18-43
Education	15.5	12-18
Fathers		
Age	35	22-44
Education	16	12-22
Family Data		
Income	41	7-100
No of Children	2	1-5

Note: The values in the top two sections of the table represent years. The values for income represent thousands of dollars.

rhythmicity, low adaptability, high activity level, withdrawal to new situations, and either high or low distractibility. As discussed earlier, these variables have been shown to be predictive of child behavior problems as well as maternal and familial difficulties. Subjects included in the sample rated their children as demonstrating a minimum of three of these temperament characteristics as demonstrated by a score which was at least one standard deviation above the mean of an earlier nonclinic Gainesville sample. As both low and high distractibility have been found to be predictive of maternal and child difficulties, a score one standard deviation from the mean in either direction was accepted. The flexibility in the inclusion criteria is thought to be in line with the goodness of fit model in recognizing that various child temperament characteristics may be predictive of difficulties within different families (Buss & Plomin, 1985; Turecki & Tonner, 1985).

As activity level was one of the possible inclusion criteria, an additional screening was considered necessary in order to rule out the presence of Attention Deficit Hyperactivity Disorder. Toward this end, potential subjects were questioned as to whether medications had at any time been tried to manage the target child's activity level or behavior. While the plan was to exclude any subjects who reported that this had been the case, this event never occurred in this sample.

In addition to the above-mentioned child temperament characteristics, several maternal/familial variables were also chosen as inclusion criteria. These included Parenting Stress Index (Abidin, 1983) attachment, perceived competence, and restriction imposed by parenting role scales as well as a modified version of the Impact on Family Scale (Stein & Riessman, 1980). These variables were chosen from a wider range of maternal psychosocial problems previously shown to be associated with having a difficult child (Sheeber & Johnson, 1991a) because they appeared most directly related to problems of parenting. Mothers included in the sample demonstrated difficulties on a minimum of two of the four scales as evidenced by a score at or above the 75th percentile of the normative sample for the PSI subscales and of an earlier nonclinic Gainesville sample in the case of IFS. The 75th percentile was reported to be the upper limit of the normal range for the PSI subscales (Abidin, 1981). This level was chosen, rather than the 90% cutoff considered to be indicative of severe stress because it seemed more appropriate given a nonclinic population. Additionally, the more conservative limit was considered too restrictive to be utilized in conjunction with inclusion criteria for child temperament.

Potential subjects were also screened to determine that neither the mother nor the target child were presently receiving psychological or psychiatric treatment. Additionally, potential subjects who reported that their

children either demonstrated extreme behavioral disturbances or were victims of severe trauma were excluded. As described in more detail in the procedures section, this information was obtained during a phone contact between the potential subject and the investigator.

Measures

Demographic Questionnaire

A demographic questionnaire was completed by each mother. The following information was gathered: age and sex of target child, mother's age, race, marital status, number of years of education completed by each parent, family income, parents' occupations, the ages of other children in the family, and whether there is a second caretaker in the home.

Parent Temperament Questionnaire (PTQ)

The PTQ is a parent-completed questionnaire developed by Thomas, Chess and Korn (Thomas & Chess, 1977) for assessing temperament in 3- to 7-year-old children. It is comprised of 72 items, with eight items tapping each of the nine temperament categories. Item content, derived from parent interview protocols, was phrased so as to reflect behaviors rather than attitudes (i.e., "my child selects..." rather than "my child prefers..."). The relative frequency of the specified behavior is marked on a 7-point scale. Half of the items are phrased in terms of one extreme (i.e., high activity) and half in terms of the other extreme (i.e., low activity). The questionnaire was normed on a sample of

148 mothers with children between the ages of 3 and 7. No significant differences were found as a function of the age or sex of the child.

The PTQ has been utilized in numerous studies with both normal and special populations (Black, Gasparrini & Nelson, 1981; Earls, 1981; Johnson, Basham, & Gordon, 1982; Sheeber & Johnson, 1987; Thomas & Chess, 1977, 1984). Results from this combined body of research indicate that the temperament dimensions measured by this questionnaire are related to child psychopathology, maternal adjustment, and the nature of parent-child interactions; these data attest to the suitability of this measure for child temperament research.

The PTQ has also demonstrated reasonable reliability for most dimensions. One study (Katz-Newman & Johnson, 1986) reported retest reliabilities ranging from .48 (Distractibility) through .92 (Approach/Withdrawal) over a 2-week period. Internal consistency reliabilities (alpha coefficients) ranging from .56 (Distractibility) to .72 (Approach/Withdrawal) were obtained for a sample of 77 children (Sheeber, 1987).

For the purposes of the present study, the individual items were summed in their scaled directions and a mean calculated to attain scores on each of the nine temperament categories. Scores were computed such that a high score was reflective of a relatively difficult behavioral style.

State/Trait Anxiety Inventory (STAI)

The STAI is comprised of two separate, 20-item self-report scales designed to assess anxiety as both a state and a trait (Spielberger, Gorsuch, & Lushene, 1970).

Respondents are instructed to mark on a 4-point scale the degree to which each item reflects how they feel at a particular moment (State scale) and in general (Trait scale). As previous research (Sheeber & Johnson, 1991a) indicated that the two scales were not differentially sensitive to the anxiety associated with having a temperamentally difficult child, only the Trait scale will be utilized in the present study.

The Trait scale demonstrates a relatively high degree of internal consistency (.83-.92) and retest (.73-.86) reliability. The STAI has an extensive validation history having been widely used in research on anxiety (e.g., Kendrick, Craig, Lawson, & Davidson, 1982; Rosenbaum & Palmer, 1984). A number of studies have used the STAI to measure maternal anxiety (Blumberg, 1980; Schubert-Walker & Walker, 1980).

Parenting Stress Inventory (PSI)

The PSI (Abidin, 1983) is a self-report measure designed to assess stress in the parent-child system which may emerge as a function of parent characteristics, child characteristics, and/or situational variables. It is comprised of both maternal and child domains which reflect stress as a function of maternal and child characteristics

respectively. Each domain consists of several subscales which tap specific aspects of the domain. Additionally, there is a brief life events survey which taps stress associated with situational variables. The final version of the PSI was normed on a sample of 534 mothers of preschool children seen in a pediatric clinic for both behavioral and health problems. It is comprised of 101 items rated on a 5-point scale. A higher score is indicative of greater difficulty.

Several of the maternal domain scores will be used in this study as measures of maternal adjustment. The parent depression scale consists of items which tap clinical depression as well as dissatisfaction with self or life circumstances which might not be associated with a clinical depression. The parent attachment scale reflects either the absence of emotional closeness to the child or the parent's perceived inability to accurately assess the child's emotions and needs. Feelings of being dominated by the demands of child-rearing at the expense of their own needs for freedom and identity are reflected in the restrictions imposed by parental role scale. The parents sense of competence scale taps insecurity in the parenting role as well as the absence of the expected reinforcement from parenting. Finally, the relationship with spouse scale reflects the absence of emotional and active support from the other parent in the area of child management.

These scales have previously been found to be associated with having a temperamentally difficult child (Sheeber & Johnson, 1991a). Taken together with Casey's (Cited in Abidin, 1983) finding that maternal domain scores were significantly correlated ($r=.40$) with the Achenbach Child Behavior Checklist (Achenbach & Edelbrock, 1983) these results suggest that the maternal domain scores are sensitive to maternal stress associated with having difficult children. Additionally, the PSI has demonstrated validity for research on maternal adjustment. The maternal domain was found to be significantly correlated with both the A-State (.71) and A-trait (.84) scales of the State/Trait Anxiety Scale (Jenkins, cited in Abidin, 1983; Lafiosca, cited in Abidin, 1983). Scores on the maternal domain have, moreover, been shown to discriminate parents who received perinatal coaching from those who did not (Bristor, cited in Abidin, 1983), abusive from nonabusive parents (Mash & Johnston, 1983) and mothers receiving adequate support from their husbands from those who were not (Lawrence, cited in Abidin, 1983). Factor analysis supported the scale construction (Abidin, 1983).

The PSI also demonstrates adequate reliability. The internal reliability coefficients for the maternal domain score is .93, ranging from .55 (attachment) to .80 (depression) for the individual subscales. Moderate to high test-retest reliability (.65-.91) has been demonstrated for the maternal domain in four separate studies (Abidin, 1983).

Impact on Family Scale

The Impact on Family Scale was originally developed by Stein and Riessman (1980) to assess changes in the normative behavior of the family as a function of a child's chronic illness. This scale was modified by the present investigator (Sheeber & Johnson, 1991b) to reflect the impact of behaviorally difficult children on the day to day functioning of their families. The resulting questionnaire contains 23 items judged to be reflective of family disruption by 15 clinical child psychologists and graduate students.

Preliminary construct validity was suggested by two studies indicating that scores on the IFS were significantly higher for conduct disordered children than for children not demonstrating behavior problems as well as for children demonstrating difficult as compared to easy temperament (Sheeber & Johnson, 1991a). The IFS also demonstrated high reliability. The split-half correlation coefficient (Spearman-Brown Formula) for odd and even items was .96. Mean item to total correlation (Chronbach's Alpha) was .93. Additionally, retest reliability was .96 across a mean time span of 4 days (range 1-14 days) between the time of initial contact and the first clinic visit. As these administrations were conducted over a short period of time (range 1-14 days; mean time span 4 days) it is felt that these scores do not provide conclusive findings regarding the stability of the measure. However, as the scores

demonstrated only slight changes in both directions at the second administration, they do indicate that the IFS is not subject to a reduction in the severity of reported complaints between the time of initial contact and the first clinic appointment. A copy of the modified IFS is provided in Appendix A.

Cleminshaw-Guidubaldi Parent Satisfaction Scale

This self-report measure is comprised of five empirically derived subscales reflecting various dimensions of parenting satisfaction: spouse support, child-parent relationship, parent performance, family discipline and control, and general satisfaction (Guidubaldi & Cleminshaw, 1985). Item content was derived from open ended interviews with parents as well as a review of relevant literature. Items are scored on a 4-point scale and are balanced for directionality. The original sample included 52 fathers and 78 mothers.

While each of the above mentioned scales taps information likely related to parenting a temperamentally difficult child, there is substantial overlap with the PSI dimensions. For this reason, only the two scales providing information not assessed by the PSI will be utilized: child parent relationship and family discipline and control. The former reflects the parents' satisfaction with their own relationship to the child, while the latter taps satisfaction with the spouse's parenting particularly as regards disciplinary matters. For the purpose of the

present study, mothers completed the child parent relationship scale. Fathers, or in some cases secondary caretakers, completed the family discipline scale. The family discipline scale was included to provide an additional source of information regarding the mother-child relationship.

High internal consistency reliabilities (Chronbach's alpha) have been demonstrated for these scales (parent child relationship, $r=.86$; family discipline $r=.82$). Preliminary construct validity was demonstrated by moderate correlations with measures of marital and general life satisfaction. Additionally, the parent-child relationship scale has been shown to discriminate between clinic and nonclinic mothers (Mouton & Tuma, 1988). As this is a relatively new measure additional psychometric data is not presently available. Findings based on this measure would necessarily be considered preliminary in nature. Nevertheless, due to the absence of other non-observational measures for assessing parent-child relationships, it is felt that the inclusion of this instrument would be a worthwhile addition to the proposed research.

Child Behavior Checklist (CBCL)

The CBCL (Achenbach & Edelbrock, 1983) is a parent-completed measure designed to assess social competence and behavior problems in children between the ages of 4 and 16. Normative data are based on a sample of 2300 clinic and 1300 nonclinic children. The Behavior Problem Scale consists of

118 items rated on a three-point scale; a higher score is indicative of greater difficulty. Separate profiles are used for each sex and for three age ranges. These profiles depict the child's behavioral pattern across a range of empirically determined categories which reflect both broad-band (internalizing, externalizing) and narrow-band syndromes (e.g., depression). As the sample for the present study was not large enough to analyze results separately by age group and as the profiles were not used for diagnostic purposes, the 4-16 year old version was used for all subjects rather than using the 2-3 year old version with younger subjects; this approach was supported by the author of the measure (T. M. Achenbach, personal communication, February 1989).

The CBCL demonstrates adequate test-retest reliabilities over a one-week ($r=.89$) and six-month ($r=.60s$) periods. Additionally, between parent agreement is moderately high ($r=.66$; Beck, 1987). The CBCL has been utilized extensively in research on child psychopathology and treatment. Profiles scores have been shown to be sensitive to treatment changes arising from parent-training interventions with conduct disordered children (Webster-Stratton, 1984). Additionally, behavioral disturbances on this measure were found to be related to difficult child temperament in a sample of 6- to 7-year old children (Garrison, Earls, & Kindlon, 1984).

The broad-band factors were utilized to assess changes occurring as a function of the intervention. The CBCL was completed independently by mothers and when available, fathers or secondary caretakers.

Parent Daily Report (PDR)

Originally developed by Patterson, Reid, Jones, and Conger (1975), this parent observation measure of child behavior problems was designed to alleviate the major difficulties associated with parent report and behavioral observation measures. More time and cost effective than independent behavioral observations, the PDR was aimed at providing a more valid and reliable approach to obtaining parent information data. The more recent version (Chamberlain & Reid, 1987) consists of 34 items: 33 are deviant child behaviors and one taps parental use of physical discipline. It is conducted during brief (5-10 minute) phone interviews. Parents are asked to indicate the occurrence or nonoccurrence of each event (total behavior score) or targeted events (target behavior score) during the preceding day. Targeted events represent a select group of child behaviors which the parent has previously identified as being in the child's behavioral repertoire. The score represents a mean frequency of symptoms per day. Several of the behaviors tapped by this measure have been reported to be evidenced by temperamentally difficult children (e.g., temper tantrums, irritableness, fearfulness). Normative

data for this version are based on 81 children between four and ten years of age.

Though the measure yields a score for both total deviant behaviors and targeted behaviors the latter demonstrates more adequate psychometric characteristics and was consequently utilized in this study (Chamberlain & Reid, 1987). Test-retest reliability for the target behavior scale was .82 over a 4-week period in a nonclinic sample. One study with a clinic population found no differences in weekly target scores across a 4-week baseline. Though PDR scores may be inflated on the first day, they are stable thereafter; the suggested procedure of conducting three interviews per assessment period controls for this potential difficulty. Interparent agreement ranged from .51 (clinic) to .89 (nonclinic). Mean entry to entry intercaller agreement ranged from .85 (clinic) to .98 (nonclinic).

The PDR has demonstrated significant concurrent validity with the Family Interaction Coding System ($r=.69$; Patterson, 1982). This level of agreement is considered to be exceptionally high given the different time span and exact behaviors which are tapped by the two measures. McMahon and Forehand (1988) report that the PDR has been used extensively as a measure of treatment outcome. While Patterson (1982) cautions that the PDR is reactive relative to other observation procedures, particularly as regards the influence of maternal mood, steps were taken in this study to reduce the influence of this potential problem. In

particular, three separate interviews were conducted per assessment period and both maternal and paternal reports of child behavior were obtained.

For the purposes of the present study, it is felt that the information provided by the PDR is complementary to that provided by the CBCL due to differences in two important domains. Firstly, the data from the PDR targets the specific behaviors identified by parents as problematic. Secondly, it taps information from parent observation for the immediately preceding 24 hours, thereby increasing the likelihood of accurate reporting.

Parent Test of Temperament Knowledge (PTTK)

This measure was developed by the investigator for use as a manipulation check in this project. The purpose of the instrument was to assess whether subjects had an increased understanding, subsequent to the intervention, of the role of child temperament in both understanding child behavior and developing effective behavior management approaches.

The first step in the development of the measure was generating items to tap the information covered in each session. Approximately five items were developed for each session. Given the PTTK's sole use as a measure of acquired information, it was felt that the primary validity issue pertained to the adequacy of the items in sampling the content of the training program. To address this, 14 psychology faculty members and students familiar with the area of child temperament were asked to review the measure

in conjunction with the training manual. They provided feedback regarding the following: clarity of the items, adequacy of the items in sampling the domain of material, and difficulty of the items. Based on the feedback received individual items were clarified and the measure was shortened to 23 items.

The next step in the development of this measure was to administer the 23 item PTTK to a sample of 15 mothers whose children attended an on-campus preschool. These women completed the instrument on two occasions approximately three weeks apart. Based on the data they provided, items were eliminated which were answered correctly by such a large percentage of subjects that their ability to reflect increased knowledge as a function of treatment was expected to be extremely limited. Nine items which were answered correctly by at least 87% of this sample were so eliminated. The resulting 14 item test had a test-retest reliability of .71 ($p < .003$). A copy of this measure is provided in Appendix A.

Procedure

Recruitment and intake assessment

Subjects were recruited via fliers distributed to area preschools as well as advertisements placed in local publications targeting families with young children. The fliers and advertisements indicated that a parenting group was available for mothers of temperamentally difficult children as part of a research project. Several temperament

characteristics such as "moody", "active", "dislikes changes" were listed in order to help parents identify the appropriateness of the program for their needs. The initial contact with subjects consisted of a parent-initiated phone call during which a brief description of the treatment and research program was offered, and a series of screening questions were conducted to determine the following: whether temperament characteristics appeared to be primarily contributing to parenting difficulties; whether the child's behavior was suggestive of psychopathology; whether the child's behavior appeared to be largely in response to a recent or severe trauma. Additionally other questions addressed exclusion criteria: current psychological/psychiatric treatment of mother or child or previous trials of medication to control hyperactivity or behavior. Potential subjects who were either not interested in the services offered or who did not seem appropriate based on this brief screening were offered referrals to service providers in the community.

The next level of screening involved an appointment between potential subjects and the investigator. At this meeting subjects signed an informed consent form which provided information regarding the objectives and procedures for the research as well as the potential risks and benefits of participating. Subjects had an opportunity to ask questions about the research and were informed that the

investigator could be contacted if questions or concerns arose at a later time.

Subsequent to the informed consent procedures, subjects were administered a series of questionnaires which tapped the aforementioned inclusion criteria. The measures administered were Parent Temperament Questionnaire, Demographic Questionnaire, Parenting Stress Index, Maternal Domain, and the Impact on Family Scale-Revised. Again at this point, subjects who either did not meet inclusion criteria or who decided not to participate were made aware of appropriate community resources. Subjects who were appropriate and interested in continuing were mailed the remainder of the questionnaires and contacted by phone for the PDR interviews prior to the first group meeting. Fathers and secondary caretakers were then provided with informed consent forms, mailed questionnaires, and contacted both for PDR interviews and so as to address any questions or concerns that they had about the program.

Group assignment

Subjects were randomly assigned to either the parent-training group or to a wait-list control group. Subjects were informed that those assigned to the wait-list condition would be placed in a parent-training group four months later; this information was provided both verbally and in the written informed consent form. Initially 20 subjects were assigned to the wait-list condition and 21 to the parent-training group; however, one subject in the parent-

training group discontinued before the end of the program. Subjects assigned to the parent-training condition participated in three separate groups of between 6 and 8 members each. Groups were divided by location: Gainesville, SW Portland, and SE Portland. In addition to making the groups more accessible to subjects, it was felt that the smaller group size allowed more time for individual questions and discussions. This same procedure was maintained when the program was conducted with the wait-list group.

Parent-training program

The model of child temperament used in this program most closely approximated that developed by Thomas and Chess (1977). A benefit of this framework over alternative models was that it facilitated building on the investigator's previous work regarding the relationship between child temperament and maternal adjustment (Sheeber & Johnson, 1991a) as well as on the temperament-focused program developed by Turecki (Turecki & Tonner, 1985) as discussed below. Additionally, the greater breadth of dimensions used in the Thomas and Chess model was felt to be advantageous from a clinical perspective in that it facilitated addressing a wider range potential "fit" issues.

Based on the goodness-of-fit notion, the protocol for the parent-training program was geared toward utilizing an understanding of child temperament to enhance the match between child characteristics and parental demands. The

program was largely based on the framework described by Turecki (Turecki & Tonner, 1985), though the approach was modified to include recommendations offered in the works of Thomas and Chess (1986;1987), to reflect the investigator's understanding of child temperament and behavior management, and to facilitate the use of the program in a group format.

The groups, led by the investigator, met weekly for 1 1/2 - 2 hour sessions over the course of nine weeks. The initial focus of the program was on familiarizing parents with the nature of child temperament, describing its role in understanding child behavior, and exploring the parental feelings and family difficulties related to parenting a difficult child. Subsequent to this, the program focused on techniques for managing temperament-related behavior problems. General information on behavior management was incorporated into this phase of the program. Homework was assigned to facilitate the use of material discussed in sessions.

In order to verify that the protocol for the program was followed accurately a checklist was developed that detailed the objectives for each session. This checklist provided a guide to the investigator in conducting the sessions. Additionally adherence to the protocol was rated by an undergraduate research assistant who observed during each session. The average protocol compliance across the three groups was 96%. Slightly more than 25% of these sessions were rated by a second undergraduate observer to

assess reliability. The correlation between the two raters was .92 ($p < .05$).

Posttreatment assessment

The final session of the program was used to administer the posttreatment assessment questionnaires. With the exception of the form for acquiring demographic data, all of the measures administered in the two-stage intake assessment were completed at this session. Subjects in the wait-list group completed these questionnaires by mail during the same week. The PDR interviews for both groups began after this final session.

Provision of training program for wait-list subjects

Subjects in the wait-list condition began the parent-training program two months after the posttreatment assessment. The groups for wait-list subjects at the two Oregon locations were led by the investigator. The group for wait-list subjects in Florida was led by another doctoral candidate who had been trained in the program. Fourteen of the twenty wait-list subjects chose to participate in the program at this point. However, there was substantial attrition and only 7 of the subjects were involved by the end of the eight weeks.

RESULTS

Homogeneity of Sample

As discussed earlier, the sample for this study was drawn from both Portland and Gainesville. Given this, the first step was to determine whether any significant differences existed between subjects as a function of location which would preclude they're being considered one sample. Initially, the groups were compared for similarity as regards demographic variables. Chi Square analyses indicated that both sex of the child, $\chi^2(1, N=39) = .3$, ns and marital status, $\chi^2(3, N=39) = 1.39$, ns were distributed evenly across locations. A manova conducted on the remaining demographic variables similarly indicated no significant difference as a function of location, $F(6,30) = 1.68$, ns. This was also the case for a manova conducted on the temperament characteristic scores as assessed at pretreatment, $F(9,29) = .66$, ns.

A series of manovas were conducted to determine whether differences existed on the dependent variables at pretreatment as a function of location. The choice of variables to be entered into each model were based on both rationally defined content areas and the number of observations available for a given variable. As indicated below, these analyses were also nonsignificant: variables related to parenting ($F(4,35) = 2.07$, ns; competence,

restriction, competence, parent-child relationship); maternal affect ($F(2,36) = .02$, ns; depression, Anxiety); child behavior as rated by mother ($F(2,37) = .57$, ns; CBCL-internalizing and externalizing); child behavior and maternal discipline approaches as rated by father ($F(3,26) = 1.23$, ns; CBCL-internalizing and externalizing scales, family discipline); and family functioning ($F(2,34) = .17$, ns.; IFS, relationship with spouse). Due to reduced sample size, PDR scores were analyzed using t-tests rather than including them in the manova models. No significant differences between locations emerged for mothers, $t(32) = 3.03$, ns or fathers, $t(21) = .01$, ns. Finally, maternal knowledge about temperament as assessed by the PTTK was equivalent across the two sites, $t(34) = 2.04$, ns. Based on these results, data from subjects across the two locations were analyzed jointly.

Equivalence of Subjects across Conditions

As reported in the procedures section, assignment to either the parent-training or the wait-list condition was random in order to increase the likelihood that the groups would be comparable on relevant factors. However, as randomization is less effective with relatively small sample sizes, it was considered important to assess the degree to which equivalence of groups was achieved.

The procedure for doing this was essentially the same as that discussed above for determining the homogeneity of the sample across locations. Initially, the groups were

compared for similarity as regards demographic variables. Chi Square analyses indicated that there were no significant differences between the two groups as regards sex of the target child $\chi^2(1, N=39) = .82$, ns, marital status $\chi^2(3, N=39) = 4.18$, ns or sibling order $\chi^2(1, N=39) = 1.38$, ns. A manova conducted on the remaining demographic variables similarly indicated no significant difference as a function of condition $F(6,30) = .26$, ns. This was also the case for a manova conducted on the temperament characteristic scores as assessed at pretreatment $F(9,29) = 1.06$, ns.

A series of manovas were then conducted to determine whether the groups differed on the dependent variables at pretreatment. The variables were entered into the analyses using the same groupings as described above. The results of these analyses were as follows: variables related to parenting ($F(4,35) = 1.24$, ns; attachment, restriction, competence, parent-child relationship); child behavior as rated by mother ($F(2,37) = .53$, ns; CBCL-internalizing and externalizing); child behavior and maternal discipline approaches as rated by father ($F(3,26) = .47$, ns; CBCL-internalizing and externalizing scales, family discipline); family functioning ($F(2,34) = .65$, ns.; IFS, relationship with spouse) and maternal affect ($F(2,36) = 3.13$, $p < .06$.; depression, Anxiety). These analyses indicated that the groups were not significantly different at pretreatment although the maternal affect variables approached significance. As shown in Table 2, the treatment groups

scores were slightly higher on these two variables. Due to reduced sample size, PDR scores were analyzed using t-tests rather than including them in the manova models. No significant differences between groups emerged for mothers $t(32) = .01$, ns, or fathers $t(21) = .26$, ns. Finally, maternal knowledge about temperament as assessed by the PTTK was equivalent for the two conditions $t(34) = 1.09$, ns.

Taken together, these results suggest that random assignment was effective in producing two comparable groups. Mean scores on each of the dependent variables are presented by condition in Tables 2-4

Program Effectiveness

Groups Comparisons

The primary goal of the study was to assess the effectiveness of the parent-training program in alleviating maternal/familial difficulties and reducing the level of child behavior problems. In order to address this goal, a series of mancovas were conducted to compare group scores at posttreatment; pre-scores were entered as covariates in these analyses. As in the previous analyses, the choice of variables to be entered into each model was based on both rationally defined content areas and the number of observations available for a given variable. The number of observations varied depending on the source (mother vs father) and the format of the measure (questionnaire vs interview); additionally, small amounts of data were lost

Table 2

Mean Scores for Parenting and Maternal Affect Variables as a Function of Time and Condition

Parenting Variables	Time	
	Pre	Post
Parent-training condition		
Parent-child relationship	22.19 (3.03)	18.38 (2.75)
Attachment	15.33 (3.50)	13.62 (2.36)
Competence	38.19 (4.64)	32.95 (4.74)
Restriction	24.19 (4.96)	20.76 (4.57)
Depression	28.19 (5.56)	20.52 (4.11)
Anxiety	45.57 (8.24)	38.30 (7.37)
Wait-list condition		
Parent-child relationship	20.89 (4.58)	20.84 (4.18)
Attachment	15.16 (2.87)	15.32 (3.18)
Competence	34.84 (6.98)	36.47 (6.20)
Restriction	24.68 (5.35)	23.05 (5.70)
Depression	24.00 (5.25)	24.05 (6.22)
Anxiety	43.44 (10.43)	43.44 (9.51)

Note. The values in parentheses are standard deviations.

Table 3

Mean Scores for Family Functioning Variables by Time and Condition

Family Variables	Time	
	Pre	Post
Parent-training condition		
Impact on Family	46.94 (12.41)	31.00 (14.85)
Relationship with spouse	22.00 (5.19)	21.72 (4.39)
Family Discipline and control	14.06 (1.69)	12.53 (2.06)
Wait-list condition		
Impact on Family	42.95 (14.02)	38.68 (16.56)
Relationship with spouse	21.79 (4.60)	22.58 (6.10)
Family Discipline and control	14.21 (3.26)	13.25 (3.31)

Note. The values in parentheses are standard deviations.

Table 4

Mean Scores for Child Behavior Variables by Time and Condition

Child Behavior Variables	Time	
	Pre	Post
Parent-training condition		
Mother Completed		
CBCL-externalizing	66.52 (7.47)	58.24 (9.60)
CBCL-internalizing	61.43 (9.38)	55.09 (9.76)
Parent daily report	11.93 (3.50)	8.28 (2.96)
Father Completed		
CBCL-externalizing	61.17 (7.64)	58.50 (9.24)
CBCL-internalizing	58.71 (6.81)	56.56 (9.13)
Parent daily report	10.59 (4.52)	7.85 (4.14)
Wait-list condition		
Mother Completed		
CBCL-externalizing	63.37 (10.33)	63.06 (9.38)
CBCL-internalizing	60.68 (10.00)	61.28 (8.25)
Parent daily report	11.78 (4.52)	10.79 (5.11)
Father Completed		
CBCL-externalizing	57.71 (15.44	57.58 (13.50)
CBCL-internalizing	54.43 (12.93)	55.17 (10.56)
Parent daily report	9.52 (5.59)	8.46 (4.56)

Note. The values in parentheses are standard deviations.

due to error (e.g., participants completing the wrong items). Significant mancovas were followed up with ancovas to identify the specific variables differentiating the groups at posttreatment.

The first set of variables entered related to maternal comfort in the parenting role. This analysis indicated that significant differences emerged as a function of condition $F(4,31) = 4.61, p < .01$. As shown in Table 5, subsequent univariate analyses indicated changes in perceived parenting competence, satisfaction with the parent/child relationship, and attachment to the child. As assessed by this measure, attachment reflects both a sense of closeness to the child and the belief that one understands the child's needs. It is notable, that feelings of being restricted by the demands of parenting were not significantly influenced by group participation.

The impact of the training program on maternal affect was demonstrated in the second mancova $F(2,32) = 11.44, p < .001$. The univariate analyses in Table 5, revealed that both anxiety and depression differentiated the groups at posttreatment. Family variables were entered into the next analysis which also emerged as significant $F(2,32) = 5.92, p < .001$. Subsequent univariate analyses indicated a significant difference between the conditions on a modified version of the Impact on Family Scale (IFS) which taps negative changes in life-style as a function of child behavior. Relationship with spouse, which as assessed by

Table 5

Univariate Group Differences at Posttreatment

Variables	F value (df)
Parenting	
Parent-child relationship	11.09 (1,34) **
Attachment	4.79 (1,34) *
Competence	11.06 (1,34) **
Restriction	2.72 (1,34)
Maternal affect	
Depression	14.63 (1,33) ***
Anxiety	15.13 (1,33) ***
Family functioning	
Impact on family	12.20 (1,33) ***
Relationship with spouse	.39 (1,33)
Mother-rated child behavior	
CBCL-externalizing	9.33 (1,35) **
CBCL-internalizing	6.75 (1,35) **
Parent daily report	6.86 (1,28) **

* $p < .05$ ** $p < .01$ *** $p < .001$

this scale measures emotional and instrumental support in the area of child management, did not differentiate the groups. These univariate analyses are presented in Table 5.

The remaining analyses assessed differential change in child behavior as a function of condition. As rated by mothers, significant differences existed at posttreatment on both CBCL data $F(2,34) = 4.72, p < .05$ and the Parent Daily Report $F(1,28) = 6.86, p < .01$. The univariate analyses presented in Table 5 indicate that differences emerged for both internalizing and externalizing behaviors. Notable, however, is that these same variables rated by fathers did not emerge as significant: PDR $F(1,20) = 1.98, ns$; CBCL and family discipline $F(3,19) = .78, ns$. The family discipline scale entered into this analysis assesses the father's satisfaction with the mother's parenting skills.

Tables 2-4 provide means for each of the dependent variables at pre- and posttreatment. An examination of the means by condition indicate that all of the observed differences at posttreatment were in the expected direction. That is, the differences observed between the conditions at posttreatment are attributable to lowered difficulty ratings for subjects in the parent-training condition.

It is also notable in this context, that consistent with expectations, no significant differences arose in temperament ratings as a function of condition. The temperament variables were entered into three mancovas. The results were as follows: adaptability, approach/withdrawal,

rhythmicity $F(3,33) = .52$, ns; mood, intensity, activity $F(3,33) = 2.20$, ns; persistence, distractibility, threshold of responsiveness $F(3,33) = 1.33$, ns.

Manipulation Checks

Given the significant group differences which emerged at posttreatment in the majority of maternal, family, and child variables, the next step involved more clearly relating these changes to participation in the parent-training program. A paired t-test was conducted on the Parent Test of Temperament Knowledge (PTTK) scores within each condition to assess change from pre- to posttreatment. The results indicated a significant difference in knowledge from pre- to posttreatment for subjects in the parent-training condition, $t(21) = 8.49$, $p < .0001$. No difference in knowledge was observed for the subjects in the wait-list condition, $t(19) = 0$, ns. These results suggest that the improvement observed parent-training subjects was related to information gained in the course of the program.

A more detailed level of analysis examined the influence of attendance and homework completion on outcome for subjects in the active condition. For each of the variables which had differentiated the groups, a corresponding variable was created by removing the variance in the post score attributable to the pre-score. Spearman correlations were then run between each of these newly created variables and the homework and attendance variables. These residual variables were created because this approach

fit conceptually with the main analyses in which pre-scores were used as covariates. Spearman correlations were run because the data were not normally distributed.

These analyses were hampered, however, by low variability in both attendance and homework completion. Reduced variability in attendance was attributable to the almost uniformly high attendance rate among participants; average attendance was seven of eight sessions (range 5-8). As regards the homework data, it was initially proposed that the homework variable would be based on daily ratings, yielding a percentage of days in which skills were practiced. However, difficulty in obtaining accurate subject recordings led to the data being recorded in a dichotomous fashion, i.e., did the subject practice in the preceding week or not, thus substantially reducing expected variability (mean = 7; range 5-8).

The results are presented in Table 6. As can be seen, only a portion of these correlations was significant. As would be expected, the correlations were negative, indicating that increased participation was related to reduced levels of difficulty. Based on these results, homework completion appears to be related to improvements in mother-reported child behavior and satisfaction with the parent-child relationship as well as with fewer reported negative life-style changes. Attendance was related to attachment as defined above, and improved child behavior.

Table 6

Relationship Between Group Participation and Outcome

Variables	Spearman Correlations	
	Homework	Attendance
Parenting		
Parent-child relationship	-.33*	-.01
Attachment	.23	-.47**
Competence	.08	-.05
Maternal affect		
Depression	-.11	.15
Anxiety	-.05	.14
Family functioning		
Impact on family	-.43*	.22
Mother-rated child behavior		
CBCL-externalizing	-.38*	-.05
CBCL-internalizing	-.15	-.09
Parent daily report	-.39**	-.46**

* $p < .05$ ** $p < .01$

Clinical Impact of Group Participation

While the findings presented thus far indicate that the parent-training program produced statistically significant changes across many domains, an additional question related to the clinical significance of these results. Although at the current time, there is not a uniformly accepted method for determining the clinical significance of obtained results (Kazdin, 1986), a frequently used approach is to examine the extent to which treatment brings the sample into the normal range (Jacobson & Truax, 1991; Kazdin, Esveltd-Dawson, French, & Unis, 1987; Kendall & Norton-Ford, 1982). The effectiveness of the treatment in this regard can be examined on both group and individual levels by using normative data as a reference (Kazdin, 1986; Kendall & Norton-Ford, 1982). Normative data are available for each of the measures used in this investigation with the exception of the modified Impact on Family Scale (Sheeber & Johnson, 1991b) and the subscales of the Cleminshaw-Guidubaldi Parent Satisfaction Scale (Guidubaldi & Cleminshaw, 1985). When a cut-off differentiating the normal from clinic range was provided in the manual, this value was used for comparisons. This was the case for the Child Behavior Checklist (Achenbach & Edelbrock, 1983) and the Parenting Stress Index (Abidin, 1983). Alternatively, a standard of one standard deviation above the mean was used as a cut-off; this was the case for the Parent Daily Report (Chamberlain & Reid, 1987) and the

STAI (Spielberger, Gorusch, & Lushene, 1970). Only variables for which a statistically significant group difference had emerged at posttreatment were evaluated with regard to the clinical significance of the results.

Group means. In addressing the question of clinical significance at the group level, the relevant question pertains to whether at posttreatment, group means are within the normal range. The cut-off for the normal range on the Parenting Stress Index subscales is the 75 percentile (Abidin, 1983). Mean scores for both the control and treatment groups were outside the normal range at pretreatment on each of the variables examined. At posttreatment, mean scores for the treatment group were within normal limits while those for the control group continued to be outside of these limits. On the mother-rated Parent Daily Report, subjects in both groups were outside of normal limits at both pre- and posttreatment assessments. These results are presented in Table 7. As subjects in both groups were within normal limits at pretreatment on mother-rated CBCL scales as well as on the STAI, posttreatment scores were not examined with reference to normative scores for these variables.

Individual cases. Although group means are useful in providing a global index of treatment efficacy, they do not reflect the progress of individual subjects. Tests of the significance of difference between two proportions (Bruning & Kintz, 1977) were performed to address this issue. In

particular, these tests were used to determine whether the proportion of subjects falling within the normal range at posttreatment was significantly different across the two groups. Subjects were excluded from these analyses if their pretreatment scores on a given variable were within the normal range. This test was chosen over the more conventional Chi-square, because in a Chi-square analysis there would have been cells with too few observations to provide valid tests.

The results indicated significant differences in the proportions of subjects in the two groups who fell within normal limits on the STAI ($Z=3.06$, $p<.01$) and the perceived parenting competence ($Z=4.5$, $p<..0001$) subscale of the Parenting Stress Index. Results of the remaining analyses were nonsignificant (attachment $Z=0$; depression $Z=1.47$; CBCL-internalizing scale $Z=.83$; CBCL-externalizing scale $Z=.59$; PDR $Z=0$).

DISCUSSION

The results of this study provide preliminary support for the efficacy of a temperament-focused parent-training program. Mothers who participated in this program reported increased comfort in the parenting role. In particular, they reported greater satisfaction in their relationships with their children, feeling more competent as parents, and experiencing more attachment to their children as defined by both feelings of emotional closeness and greater ease of understanding the child's needs. Additionally, these mothers indicated that they had experienced a more general improvement in mood as regards reduced levels of anxiety and depression.

Mothers also reported improvements in child behavior. Mothers who participated in the program rated their children as evidencing less problematic behavior in both the internalizing and externalizing spectrums. Moreover, these changes were observed by the mothers in the children's daily behavior. Finally, these mothers indicated that the negative impact of their children's behavior on their lifestyle had been reduced. It is likely that this latter change was a function of both improvements in the children's behavior and increased maternal confidence in their own ability to handle difficult child behavior when it arose.

Contrary to expectations, neither feelings of being restricted by the parenting role or spousal relationships were positively influenced by group participation. It had been hypothesized that the greater ease in handling difficult child behavior provided by the use of temperament-based approaches would allow mothers to allocate more of their resources to their own needs and interests. The results suggest that the intervention may not have been sufficiently powerful to achieve that end. Alternatively, it is possible that spending two hours a week attending a parenting group, in addition to the paperwork and homework demands created by participation in this study, served to offset that potential benefit. Future analysis of data from a follow-up assessment will be helpful in teasing apart these possibilities; if the demands of group participation were operative in offsetting improvement in this area, improvements should be evident at that later date.

On the other hand, with the benefit of hindsight, the finding regarding mothers' relationships with their spouses is not altogether surprising. The relationship with spouse subscale of the PSI largely taps provision of emotional and instrumental support in caring for the children. As fathers did not participate in the program, gaps were created in both the knowledge base and the parenting strategies likely used by mothers and fathers thus making it difficult for fathers to be in supportive roles. Clinical impressions derived from leading these groups supports this conclusion.

Although encouraged to share information and ideas acquired in the program with their partners, mothers routinely reported feeling frustrated due to the difficulty of doing so. In fact, the primary recommendation offered by group participants for improving the program was to encourage father participation.

Overall the results presented are consistent with the goals and expectations for temperament-based parent training as originally proposed by Thomas and Chess (1977) and more recently supported by others interested in clinical applications of child temperament data (Cameron & Rice, 1986; Carey, 1982). These results specifically support an approach to temperament-based parent education which does not rely on a pre-conceived definition of "difficulty". This point is worth highlighting given both concerns about the relative risks and utility of the "difficult" label (Rothbart, 1982) and the "goodness of fit" concept which emphasizes that the specific temperament characteristics found to pose difficulties for the child or parent will vary as a function of child's age, parental demands, and other contextual factors (Thomas and Chess, 1977; Turecki and Tonner, 1985). The flexibility of the inclusion criteria and the process of recruiting subjects solely through self-referral were both designed to take these concerns into consideration.

The findings presented here extend previous work in a variety of ways. Firstly, the use of validated outcome

measures and the collection of post-assessment data from all study participants, provide for both greater confidence in the results and greater clarity as regards their meaning. The delineation of areas in which the training was and was not successful facilitates future development of parent-training programs in a way that global ratings of satisfaction or change do not. Additionally, and perhaps most importantly, the inclusion of a control group and the findings of increased knowledge about temperament for subjects in the active condition, increase the likelihood that observed changes are reasonably attributable to program participation. Finally, the finding that temperament-based training can be provided effectively in a group format is important given the greater cost-effectiveness of this approach over individual sessions.

There are, however, aspects of the findings, which in running counter to hypothesized outcomes have left questions to be addressed. Primary among these was the absence of expected improvements in father-rated indices of child behavior and maternal parenting skill. With respect to the former, it is considered likely and most parsimonious to accept that this is an accurate reflection of child behavior in the context of father-child interactions. As fathers did not participate in the program, there is no reason to expect that their style of interacting with the children was altered in such a way as to promote either smoother interactions or improved child behavior. Although, the

present study, having not utilized direct observations of parent-child interactions, cannot speak to this directly, this explanation is consistent with both the goodness of fit model and with knowledge about the situational specificity of child behavior.

Several potential explanations exist for the lack of change in father ratings of maternal parenting skill. Two related possibilities are that mothers either did not change their parenting behaviors or that the changes made were not congruent with fathers' views on appropriate discipline. Again, the absence of observational measures precludes direct assessment of these hypotheses at this time. However, the improvements in mother-rated child behavior suggest that mothers may have been handling child behavior differently than in the past. This is especially the case given the finding that homework completion, which typically involved practicing new behavior management approaches, was predictive of improvement in child behavior. Alternatively it is feasible that fathers were not sensitive to the changes that occurred over a relatively brief period of time. In future analyses of data from the follow-up assessment it will be interesting to note whether father ratings of maternal skill change over time. Finally, as discussed in the measures section, the Cleminshaw Guidubaldi measure is relatively new and its psychometric qualities are therefore less than certain. It is possible therefore, that the particular scale used to obtain father ratings in this

area may not be as sensitive to treatment changes as was originally hoped.

Another area in which the results ran counter to hypotheses was the lack of consistent relationships between degree of improvement and either homework completion or attendance. The significant results which did emerge provide additional support for the link between program participation and observed improvement. Particularly strong in this regard was the pattern of results suggesting a relationship between homework completion and child behavior. This is notable given that unlike variables more specific to maternal functioning, child behavior would only be likely to change if mothers were practicing their skills at home with their children.

Nonetheless, as previously discussed, only a subset of these analyses were significant. Several alternatives exist to explain the inconsistency observed in this data. Firstly, based on the design of this study, it is not feasible to determine which components of the training program were operative in producing observed changes or how many sessions would be necessary to achieve these results. It is possible, therefore, that the observed inconsistency in these findings reflects the fact that fewer sessions than are currently in the program would have been necessary to obtain many of the desired improvements. Additionally, as discussed in the results section, both good attendance and methodological difficulties in collecting the homework data

contributed to limited variability in the data. It is possible that this restricted range placed limits on establishing relationships between these variables and treatment outcome. Taken together, these data suggest that within the narrow range observed in this study, somewhat reduced participation may not effect outcome except in regard to child behavior. It awaits future research to determine the components of the program which are most critical and those which could be removed without reducing program effectiveness.

When the findings regarding the father-rated variables and the homework/attendance data are considered jointly, however, it becomes necessary to also consider another, more conservative interpretation. These data suggest the possibility that the specific components of the training program, may not have been the primary factor in creating group differences at posttreatment. One of the potential difficulties in using a wait-list control design for assessing treatment outcome is the difficulty in controlling for non-specific factors such as receiving support, expectations for change, or the influence of having invested ones efforts in a treatment program (Basham, 1986). Looking at the results from this standpoint, it could be argued that improvement as rated by maternal reports was a function of factors such as those listed. More particular to the discrepancy between mother and father ratings of child behavior problems, is the additional concern that parental

ratings of child behavior are social perceptions influenced by parental characteristics as well as by objective components of the child's behavior (e.g., Bates & Bayles, 1984). In fact, the influence of maternal characteristics, especially as regards negative affect, on child behavior ratings has been increasingly documented in the literature on child psychopathology (e.g., Conrad & Hammen, 1989; Brody & Forehand, 1986). It is feasible, therefore, that to the extent that the program was successful in improving maternal affect and psychosocial adjustment, changes in mother-rated child behavior may be artifactual.

Taken together, these factors could explain the absence of change in the reports of fathers who were not involved in the program. It might also explain the absence of expected relationships between level of participation and degree of improvement, although it is possible that level of participation could be expected to exert an influence on non-specific factors listed above as well.

While a follow up study utilizing an active control group, will be necessary to address this possibility more definitively, several aspects of this study argue against the influence of non-specific factors as an explanation for mother-rated improvement. Firstly, maternal ratings did not show a global pattern of improvement suggestive of a positive response bias. As discussed earlier, the presence of difficulties in the areas of relationship with spouse and feeling restricted by the parenting role make sense in the

context of the research design and suggest that mothers were likely accurately reporting their current feelings. Moreover, given a bias toward positive reporting, corresponding changes in ratings of child temperament would have been expected; as discussed, these did not occur. Finally, the PTTK scores indicated that improvement in the active condition was accompanied by increases in knowledge about child temperament and temperament-based approaches to managing difficult child behavior. This suggests a link between group participation and improvement.

This discussion of the observed results points to several directions for continuing this research. An immediate focus will be the examination of two month follow-up data from this study. As described above in the section regarding feelings of being restricted by the parenting role, it is expected that the observed results may well be stronger at follow up. The brief course of the training program did not provide subjects with much time to practice learned skills; it is expected that over time subjects will have more opportunity to practice and may therefore consolidate gains. This hypothesized improvement at follow-up is, moreover, consistent with previous data regarding outcome in child treatment which suggests that treatment success looked at collectively may be stronger at follow-up than at posttreatment (Levitt, 1957).

A related issue is that of the clinical impact of the training program. As presented in the results section, the

attempt to provide information regarding the clinical significance of the findings resulted in a somewhat mixed picture. When examined at the group level, the results suggest that the program was successful in bringing subjects within the normal range; this was primarily an issue for the Parenting Stress Index subscales as the majority of the other scales were within normal limits prior to treatment. However, at the individual level, the proportion of subjects who moved into the normal range did not appear to be a function of treatment. As was discussed above, it will be necessary to examine the results at the follow-up to determine whether a consolidation of gains is evident that may impact the assessment of clinical significance. An additional issue is that as the sample was not taken from a clinic population, the definition of clinical significance as reflecting movement into the normal range presented methodological as well as conceptual difficulties. With regard to the former, many subjects were within the normal range at pretreatment; this limited the sample for examining movement into the normal range. Many variables could not be examined at a group level for the same reason. Similarly, at the conceptual level it would seem that given a non-clinic sample, an alternative conceptualization to clinical significance may be beneficial. One possibility would be to assess consumer satisfaction with the program (Kazdin, 1986). While this was not done in a standardized way in the

current study, it is a recommended approach for future research.

Of primary importance in future projects will be the inclusion of direct observations of parent-child interactions. This will be necessary in order to assess both parental use of program skills and potential changes in child behavior. In particular, use of behavioral observations would facilitate an examination of the extent to which mother reports of improved child behavior tap observable changes in the child as compared to reflecting maternal bias due to improved affective state or investment in the program as described earlier. The degree to which mother-rated improvements in affect and comfort in the parenting role are related to changes in child behavior and maternal skill could also be examined. Finally, it would be interesting to note whether more qualitative improvements in the interaction such as maternal and child affect emerge at posttreatment.

The inclusion of an alternative treatment condition would seem potentially advantageous at the next stage in this research program. Given the substantially larger sample sizes needed to demonstrate differential effectiveness between alternative treatments, and the concomitantly larger investment in time and financial resources, it has been suggested that individual approaches be of demonstrated efficacy prior to engaging in comparative outcome studies (Kazdin, 1986). The findings of this

initial study provide at least the preliminary support for the parent training program necessary to warrant a more intensive investigation. The advantage of a comparative study would be to control for the effects of non-specific factors discussed earlier. This would enable the investigator to isolate the degree to which observed effects are unique to the training program and potentially to more closely link observed outcome to participation.

Future studies should also include fathers as participating subjects. From a clinical perspective, including fathers is congruent with feedback from group participants as well as with the promotion of non-sexist and collaborative parenting practices. From a research end, including fathers would allow us to examine whether the participation of both parents is related to increased program efficacy. In particular, it would be interesting to observe whether changes in spousal relationships occur as a function of group participation.

Additionally, it may be useful to do an assessment at mid-treatment after subjects have been familiarized with the concept of temperament but before specific management strategies have been addressed. Subjects in the current study reported that it was an understanding of the temperament characteristics rather than the specific techniques which were most helpful. It would be useful to determine the extent to which improvements can be attained from that component of the program.

Finally, it would be advantageous to replicate this study with a substantially larger sample. This would be important in order to identify factors predictive of treatment outcome. It is possible, for example, that the parent-training program may be more effective given certain child temperament characteristics or patterns relative to others. Additionally, other factors such as subject demographic characteristics or the specific form of child behavior problems may influence outcome. Investigation of these variables would facilitate continued program development.

APPENDIX A
UNPUBLISHED MEASURES

Parent Test of Temperament Knowledge

Please circle the response which seems most correct to you.

1. Temperament refers to
 - a. An individual's style of behavior
 - b. A person's level of friendliness
 - c. An individual's degree of motivation
 - d. A person's tendency to act aggressively
2. It is most effective to
 - a. discuss with the child what the punishment should be
 - b. develop different discipline techniques to fit the specific situation
 - c. have just a few discipline techniques that are used consistently
 - d. just explain to the child what he or she has done wrong
3. If one was to say that there was a "good fit" between a parent and child, this would mean that
 - a. They love each other
 - b. There is a one-to-one agreement between the temperament characteristics of the parent and those of the child (for example, they are both active).
 - c. There is little or no stress and tension in the relationship
 - d. The demands the parent places on the child are in line with the child's abilities.
4. Children who demonstrate difficult temperament characteristics
 - a. are usually hyperactive or emotionally disturbed
 - b. are generally perfectly normal, healthy children
 - c. are most frequently born prematurely
 - d. have generally suffered brain damage
5. The best way to prevent temper tantrums is to
 - a. Learn to recognize those situations which are difficult for your child and develop ways to decrease those demands
 - b. Avoid situations which are difficult for your child
 - c. Give in to your child's demands
 - d. Ignore them when they occur

6. The first step in learning to manage difficult child behavior is to remain neutral. Which of the following is involved in remaining neutral?
 - a. Focusing on the motivations underlying the child's behavior
 - b. Focusing on your feelings in the situation
 - c. Focusing on the child's behavior
 - d. Reminding yourself that the child is acting difficult in order to get your attention
7. When a child misbehaves it is important to
 - a. Tell him that he has broken the rule and describe the punishment
 - b. Wait until later to punish him so that you have time to decide what to do
 - c. Give him several warnings so that you don't punish unfairly
 - d. Punish him quickly, so that explanations should be given later.
8. Which of the following is true of temperament characteristics?:
 - a. They are not influenced by the child's environment
 - b. They are primarily learned behaviors
 - c. They are relatively stable across time
 - d. They are not apparent until the child learns to speak
9. Labeling the temperament characteristics that are related to your child's behavior is one way to manage difficult child behavior. When labeling for your child, it is important
 - a. to use simple, specific language so that the child can understand
 - b. to sound stern so that the child takes you seriously
 - c. to use many examples so that the child can understand
 - d. to use an animated or emotional tone of voice so that the child will pay attention to you
10. Which of the following is a way to prevent wild and overactive behavior in an active, distractible child?
 - a. Have child play with only one toy or game so that he or she doesn't start to run from one activity to another
 - b. Provide child with a range of activities so that he or she doesn't get bored with one toy.
 - c. Ignore the child when he or she starts to behave wildly
 - d. Give the child extra attention when he or she starts to behave wildly

11. The key to dealing with your child's unpredictable (nonrhythmic) behavior is to
 - a. Avoid keeping the child on a set schedule
 - b. Try to keep a very routinized schedule until your child gets used to it.
 - c. Let the child go to bed whenever he is tired
 - d. Separate bedtime from sleeptime and mealtime from eating time
12. Which of the following is NOT an advantage of labeling the temperament characteristics related to your child's behavior?
 - a. It helps you see that the child is not being intentionally hurtful.
 - b. It reminds you to remain neutral
 - c. It helps increase your child's understanding of his or her behavior
 - d. It decreases the amount of difficult behavior
13. Which of the following has NOT been shown to be related to having a child with difficult temperament characteristics?
 - a. An increased feeling of attachment to the child
 - b. Feeling like one is a poor mother
 - c. Feeling restricted by the demands of parenting
 - d. Maternal depression
14. The goal of temperament-based parent training programs is to
 - a. remove all stress and tension from the parent-child relationship
 - b. improve the fit between the parents' demands and child's characteristics.
 - c. teach parents to manage their children's behavior without using punishment
 - d. help parents learn that it is sometimes necessary to use stern punishments
15. Having a child teach a doll or stuffed animal how to handle new situations is a good way to
 - a. Decrease distractibility
 - b. Help him or her overcome fears
 - c. Calm down an overactive child
 - d. Increase distractibility
16. When giving instructions to distractible children, it is helpful to
 - a. Get directly to your point without wasting time giving explanations or establishing eye contact
 - b. Give them a series of instructions while you have their attention
 - c. Give one single-step command at a time
 - d. Sound stern so that the child knows your message is important

17. Children who feel sad/angry frequently, may spend a great deal of time complaining. One way to handle this behavior is to
 - a. Ignore the child until he or she stops complaining
 - b. Let him continue to complain because it is important that children know its O.K. to express their feelings.
 - c. Tell the child that he should only speak when he has something nice to say.
 - d. Acknowledge the child's feelings so that he knows he's been heard but then firmly tell him that he has a choice between talking nicely or staying quiet until he feels better.
18. Some children have a hard time dealing with new situations. With these children, it is helpful to
 - a. Briefly provide advance notice of the approaching event so that they can get used to the idea
 - b. Avoid telling them about it so that they don't worry in advance
 - c. Give them as much detail as possible about the approaching event so that they know just what to expect
 - d. Avoid demanding that they become involved in new situations until they feel that they are ready
19. It is recommended that one uses "Cool Off" activities
 - a. To help a child deal with angry feelings
 - b. Before the child goes to bed.
 - c. When the child is becoming overexcited
 - d. To calm a child who is easily stimulated by sensory information
20. If your child is prone to temper tantrums, it is important to
 - a. Always ignore your child while he or she is tantruming
 - b. Have a consistent way of responding to tantrums
 - c. Try a variety of approaches depending on the situations
 - d. Avoid upsetting the child
21. Which of the following is NOT advisable when explaining rules and consequences to children
 - a. Be serious in tone and manner when explaining rules
 - b. Explain rules to the child at a calm time.
 - c. Be simple and specific in explaining rules
 - d. Wait for the event to arise before discussing it.
Young children won't remember it otherwise

22. When parents attempt a new approach to managing difficult child behavior, they should generally expect
- a. Slow, steady, gradual improvements
 - b. Uneven progress marked by periods of improvement, slips backward, and times without change
 - c. Slow, steady, gradual improvements except under times of stress
 - d. Rapid improvement
23. If your child is experiencing difficulties in preschool because of his or her temperament traits it is a good idea to
- a. Hope that his behavior in school will improve because of the work you are doing at home
 - b. Take your child out of preschool until his or her behavior is more manageable
 - c. Let the teacher know some of the techniques that have worked for you at home
 - d. Switch schools until you find one that can better manage his or her behavior.

Modified Impact on Family Scale

The questions on the following pages ask you to mark an answer which best describes your feelings. While you may not find an answer which exactly states your feelings, please mark the answer which comes closest to describing how you feel. YOUR FIRST REACTION TO EACH QUESTION SHOULD BE YOUR ANSWER.

Please mark the degree to which you agree or disagree with the following statements by choosing the number which best matches how you feel:

- | Strongly
Disagree | Disagree | Not Sure | Agree | Strongly
Agree |
|----------------------|---|----------|-------|-------------------|
| 0 | 1 | 2 | 3 | 4 |
| 1. | I spend a great deal of time with teachers and other professionals concerning my child's behavior | | | |
| 2. | I have had to cut down the hours I work in order to care for my child. | | | |
| 3. | I have stopped working because of my child's behavior. | | | |
| 4. | Because of my child's behavior, our family is unable to travel out of the city, or to other places we would like to go. | | | |
| 5. | It is hard to find a person who is willing or able to take care of my child. | | | |
| 6. | I see my relatives less than I would like because of my child's behavior. | | | |
| 7. | Because of my child's problems our family is not as close as I would like. | | | |
| 8. | I have thought about not having more children because of the problems this child has had. | | | |
| 9. | Because of my child's behavior I see friends less than I would like. | | | |
| 10. | It is hard to give much attention to my spouse/friend or my other children because of the needs of my child. | | | |
| 11. | Dealing with my child's problems has caused a great deal of conflict between myself and my relatives. | | | |
| 12. | Fatigue is a problem for me because of my child's behavior. | | | |

13. Nobody understands the burden I carry because of my child.
14. I worry about what will happen to my child in the future (when he/she grows up).
15. There is much fighting within our family (eg., between myself and my spouse, between our children) because of my child's behavior.
16. Special family activities are often spoiled because of my child's behavior.
17. There are few quiet, calm moments in our home because of my child's behavior.
18. My child's behavior has caused conflicts between myself and my neighbors.
19. It is hard for me to get my housework done when my child is at home.
20. I am sometimes embarrassed by my child's behavior in front of the neighbors.
21. It is often uncomfortable to have friends visit because of my child's behavior.
22. My child's behavior places a financial burden on the family.
23. For two parent homes:
My partner and I spend a great deal of our time together talking about or dealing with my child's problems.

For single parent homes:

My child's behavior makes it difficult for me to enjoy dating or socializing.

APPENDIX B
RAW DATA

Pre-Treatment Assessment:
Parenting and Maternal Affect Variables

Treatment Condition

ID	PCRELAT	ATTACH	COMP	RESTRICT	DEPRESS	STAI
5	24	13	45	31	25	47
6	26	19	42	24	38	50
10	18	16	25	16	22	42
11	22	16	35	27	24	31
12	20	13	40	26	27	51
13	28	19	37	14	32	43
23	27	11	39	26	33	41
27	21	17	36	28	36	35
28	20	15	42	26	28	52
29	21	10	36	18	22	33
33	19	14	37	20	28	45
35	23	15	35	31	27	54
36	23	14	37	23	25	53
37	17	11	33	21	17	33
43	22	17	41	26	31	51
47	25	23	41	29	33	52
49	23	15	42	24	28	56
56	17	17	46	28	36	53
59	23	20	41	30	34	53
60	24	18	38	23	23	33
69	23	9	34	17	23	49

Wait-list Condition

ID	PCRELAT	ATTACH	COMP	RESTRICT	DEPRESS	STAI
3	17	14	25	23	17	32
4	24	13	29	27	21	58
14	17	14	27	22	22	35
18	26	15	28	23	26	42
24	20	14	31	24	16	42
25	23	13	41	31	34	64
40	17	17	37	20	25	41
41	20	13	36	24	23	43
42	23	15	45	34	34	61
44	32	23	49	33	34	52
45	10	14	27	26	21	31
50	22	15	32	26	23	38
51	19	15	42	20	23	32
53	22	14	31	21	22	50
55	18	21	33	19	22	35
61	23	12	42	27	23	53
65	25	18	31	15	18	35
66	21	12	33	34	26	.
68	18	16	43	20	26	38

Pre-Treatment Assessment:
Child Behavior and Family Functioning Variables

Treatment Condition

ID	INT MOM	EXT MOM	INT DAD	EXT DAD	PDR MOM	PDR DAD	DISC	IFS	SPREL
5	77	82	.	.	18.60	.	.	61	31
6	61	67	62	71	15.60	20.60	12	63	28
10	60	54	60	57	8.30	9.60	.	23	.
11	43	68	50	69	10.30	.	14	54	16
12	68	73	.	.	8.60	.	.	43	.
13	62	67	60	65	9.60	7.60	16	27	19
23	61	71	61	64	12.30	14.30	16	59	20
27	58	68	69	71	11.67	4.00	17	57	11
28	67	67	69	69	8.67	12.33	16	53	24
29	55	61	55	56	16.33	11.00	13	35	17
33	51	54	53	51	.	.	15	45	18
35	50	58	.	.	10.33	.	.	61	.
36	78	81	59	58	17.00	.	14	61	30
37	61	69	48	57	12.33	.	13	26	22
43	51	67	51	57	6.00	12.00	11	38	22
47	48	62	.	.	12.30	.	.	41	20
49	69	69	67	58	16.33	14.00	13	50	24
56	68	60	51	51	8.33	6.00	14	46	29
59	72	58	61	50	13.33	9.33	12	51	20
60	67	69	55	62	10.66	6.33	14	36	23
69	63	72	67	74	.	.	15	55	22

Wait-list Condition

ID	INT MOM	EXT MOM	INT DAD	EXT DAD	PDR MOM	PDR DAD	DISC	IFS	SPREL
3	41	43	48	46	3.33	11.60	19	27	16
4	61	69	.	.	6.60	7.30	.	57	24
14	67	51	42	33	3.30	4.30	12	27	24
18	71	57	.	.	11.60	.	.	30	19
24	67	61	.	.	16.30	.	.	35	26
25	38	54	33	34	11.00	4.00	12	37	17
40	59	71	64	81	11.00	12.00	15	41	21
41	63	71	63	64	14.33	21.50	17	35	16
42	67	68	61	68	18.67	11.67	17	67	26
44	80	77	.	.	15.00	.	.	77	28
45	60	44	53	39	.	.	6	39	15
50	56	69	.	.	13.00	.	.	46	27
51	51	71	33	55	15.00	2.00	16	61	23
53	63	54	72	57	15.33	14.67	14	27	26
55	62	63	66	71	12.50	9.00	13	36	19
61	61	75	60	73	.	.	13	43	27
65	71	74	71	73	.	.	16	39	14
66	53	71	45	64	.	.	17	52	25
68	62	61	51	50	9.67	6.67	12	40	21

Post-Treatment Assessment:
Parenting and Maternal Affect Variables

Treatment Condition

ID	PCRELAT	ATTACH	COMP	RESTRICT	DEPRESS	STAI
5	16	12	31	20	15	33
6	19	14	31	20	24	40
10	16	14	32	16	20	30
11	20	15	33	28	18	37
12	15	11	41	26	23	48
13	23	15	36	13	20	44
23	21	10	33	22	26	41
27	23	12	33	23	26	36
28	21	16	44	26	20	43
29	18	13	34	18	20	31
33	13	10	30	23	24	44
35	20	11	29	20	16	.
36	21	14	35	23	22	44
37	18	11	25	15	12	22
43	21	13	33	26	24	46
47	17	16	32	15	27	42
49	16	16	27	23	22	32
56	17	17	41	19	18	42
59	19	17	34	25	22	50
60	17	17	32	23	18	30
69	15	12	26	12	14	31

Wait-list Condition

ID	PCRELAT	ATTACH	COMP	RESTRICT	DEPRESS	STAI
3	20	12	27	16	19	37
4	24	20	40	28	28	62
14	19	15	29	22	26	37
18	19	14	32	24	21	45
24	23	16	34	22	21	39
25	20	15	47	27	33	49
40	16	16	33	19	26	48
41	23	13	39	28	31	44
42	26	17	38	28	34	62
44	32	23	44	35	29	51
45	12	15	32	25	25	33
50	20	19	40	28	18	42
51	22	9	36	17	18	30
53	17	12	34	17	28	.
55	19	12	33	16	16	34
61	19	15	49	26	21	52
65	21	16	27	16	10	35
66	24	17	38	28	25	48
68	20	15	41	16	28	34

Post-Treatment Assessment:
Child Behavior and Family Functioning Variables

Treatment Condition

ID	INT MOM	EXT MOM	INT DAD	EXT DAD	PDR MOM	PDR DAD	DISC	IFS	SPREL
5	68	63	.	.	6.00	.	.	37	22
6	63	68	67	74	11.67	13.67	11	43	24
10	49	48	60	55	4.67	8.00	.	22	.
11	48	68	58	67	14.67	.	10	51	16
12	68	71	.	.	7.67	.	.	34	.
13	56	57	51	51	5.67	6.00	15	27	15
23	45	48	38	48	7.67	9.50	15	32	24
27	59	68	72	72	5.67	4.00	15	53	16
28	64	64	71	71	6.67	14.33	14	45	26
29	58	50	.	.	10.33	6.00	.	13	26
33	60	59	56	48	.	.	15	20	17
35	41	48	.	.	.	.	.	45	.
36	75	79	52	63	14.33	15.00	10	61	29
37	52	65	58	61	10.00	.	10	11	16
43	51	65	42	50	8.33	4.00	12	27	24
47	41	51	.	.	8.67	.	.	6	19
49	53	54	59	51	8.30	6.50	11	36	26
56	63	50	59	54	5.67	3.67	13	19	24
59	57	47	51	50	8.00	3.33	10	28	26
60	45	54	52	54	5.00	8.00	13	15	22
69	41	46	59	67	.	.	14	26	19

Wait-list Condition

ID	INT MOM	EXT MOM	INT DAD	EXT DAD	PDR MOM	PDR DAD	DISC	IFS	SPREL
3	.	.	.	.	1.33	3.67	.	30	13
4	61	68	.	.	13.33	12.00	.	69	26
14	66	52	39	36	5.00	1.67	12	33	30
18	66	52	.	.	8.67	.	.	25	17
24	60	55	.	.	19.00	.	.	27	24
25	51	51	.	.	6.67	2.67	.	36	18
40	53	68	67	77	12.33	11.50	17	30	22
41	61	71	58	68	17.00	16.00	19	46	23
42	58	67	56	64	.	9.33	15	48	34
44	83	75	69	68	.	.	15	74	29
45	70	47	51	39	.	.	6	30	15
50	51	67	.	.	8.00	.	.	49	30
51	48	60	.	.	12.33	5.50	.	45	18
53	60	51	68	54	16.67	12.00	13	17	25
55	64	71	61	64	12.00	8.00	12	28	24
61	61	74	60	68	.	.	12	31	21
65	70	67	40	52	.	.	12	14	11
66	58	75	48	62	.	.	15	64	25
68	62	64	45	39	8.00	10.67	11	39	24

Pre-Treatment Assessment: Temperament VariablesTreatment Condition

ID	ACTV	ADAPT	APPRO	DISTR	INTEN	MOOD	PERS	RHYTHM	THRESH
5	4.63	4.25	4.88	2.50	4.75	3.50	5.25	3.13	4.75
6	3.50	2.50	3.75	2.38	5.13	3.50	3.75	2.00	2.25
10	2.88	2.50	6.38	3.25	4.38	3.63	3.63	4.63	2.50
11	5.63	3.75	2.50	2.00	4.63	4.00	3.75	4.63	3.63
12	4.50	1.50	6.25	1.88	5.63	3.00	3.50	5.00	2.50
13	3.13	3.00	1.38	2.88	3.63	3.13	3.75	5.00	3.25
23	4.13	2.50	1.50	1.63	5.50	3.13	4.00	5.25	1.88
27	3.88	4.38	3.63	3.63	4.38	2.88	3.63	3.13	2.38
28	3.75	2.50	1.13	1.75	3.63	2.63	3.13	3.50	2.75
29	3.63	3.00	2.00	1.88	4.38	3.57	2.88	2.63	3.25
33	3.38	2.88	2.63	2.88	4.50	3.00	3.38	3.00	1.38
35	4.38	2.29	0.75	2.25	4.75	1.38	3.50	2.13	2.38
36	3.50	1.63	2.13	1.75	5.50	2.25	3.75	4.25	2.13
37	4.38	3.63	2.88	2.25	4.63	3.13	2.88	3.75	1.38
43	4.68	4.38	4.25	2.25	4.75	3.75	3.00	3.88	3.63
47	4.00	4.00	5.13	0.88	5.50	4.25	4.88	4.13	2.25
49	4.25	2.88	0.88	1.63	5.13	3.25	3.50	4.75	2.63
56	3.13	2.38	0.88	2.63	4.63	2.88	3.88	4.00	3.63
59	2.38	3.38	1.88	2.38	4.63	3.13	3.00	2.28	1.00
60	4.25	2.75	2.00	2.00	5.25	2.38	1.25	4.25	3.75
69	4.50	2.13	3.88	2.63	5.13	3.50	2.25	2.75	2.50

Wait-list Condition

ID	ACTV	ADAPT	APPRO	DISTR	INTEN	MOOD	PERS	RHYTHM	THRESH
3	3.63	3.72	4.00	2.88	3.00	4.28	2.25	2.07	1.500
4	5.50	1.88	2.38	3.38	5.50	2.88	2.88	2.63	3.885
14	1.75	3.25	2.38	3.50	4.13	3.38	3.25	3.75	1.885
18	3.00	3.63	3.63	2.13	3.88	2.71	4.00	4.14	0.885
24	3.88	2.75	2.25	2.50	5.00	4.13	3.00	3.13	0.385
25	3.63	2.50	2.13	2.75	4.38	3.25	3.13	3.75	2.500
40	4.88	4.00	3.13	2.38	3.63	5.13	3.13	2.75	4.000
41	4.13	2.88	1.88	1.50	4.75	2.25	3.63	4.38	1.500
42	3.50	1.25	0.88	2.13	6.00	3.57	3.75	3.38	0.750
44	5.63	1.86	2.25	0.38	6.00	1.88	3.38	1.25	2.250
45	3.88	1.38	1.50	3.75	3.38	3.25	2.88	4.13	0.635
50	3.50	3.50	2.75	2.88	3.75	4.50	2.88	2.63	2.385
51	4.25	4.50	3.88	3.13	4.50	3.38	3.63	4.00	2.750
53	3.63	3.25	4.00	3.50	4.63	4.38	3.75	3.63	2.250
55	3.50	3.13	4.63	2.88	3.63	2.57	2.88	3.88	2.630
61	4.38	3.50	3.25	2.00	5.13	4.13	3.88	4.38	3.630
65	3.88	3.00	3.63	2.00	5.25	2.88	3.75	3.43	1.500
66	3.63	3.13	1.88	2.38	4.81	4.00	4.00	3.75	3.000
68	3.50	3.13	1.75	2.63	4.63	3.50	3.63	4.75	0.880

Post-Treatment Assessment: Temperament VariablesTreatment Condition

ID	ACTV	ADAPT	APPRO	DISTR	INTEN	MOOD	PERS	RHYTHM	THRESH
5	4.62	4.25	4.87	2.50	4.75	3.50	5.25	3.12	4.75
6	3.50	2.50	3.75	2.37	5.12	3.50	3.75	2.00	2.25
10	2.87	2.50	6.37	3.25	4.37	3.62	3.62	4.62	2.50
11	5.62	3.75	2.50	2.00	4.62	4.00	3.75	4.62	3.62
12	4.50	1.50	6.25	1.87	5.62	3.00	3.50	5.00	2.50
13	3.12	3.00	1.37	2.87	3.62	3.12	3.75	5.00	3.25
23	4.12	2.50	1.50	1.62	5.50	3.12	4.00	5.25	1.87
27	3.87	4.37	3.62	3.62	4.37	2.87	3.62	3.12	2.37
28	3.75	2.50	1.13	1.75	3.63	2.63	3.13	3.50	2.75
29	3.62	3.00	2.00	1.87	4.37	3.57	2.87	2.62	3.25
33	3.37	2.87	2.62	2.87	4.50	3.00	3.37	3.00	1.37
35	4.37	2.28	0.75	2.25	4.75	1.37	3.50	2.12	2.37
36	3.50	1.62	2.12	1.75	5.50	2.25	3.75	4.25	2.12
37	4.37	3.62	2.87	2.25	4.62	3.12	2.87	3.75	1.37
43	4.62	4.37	4.25	2.25	4.75	3.75	3.00	3.87	3.62
47	4.00	4.00	5.12	0.87	5.50	4.25	4.87	4.12	2.25
49	4.25	2.87	0.87	1.62	5.12	3.25	3.50	4.75	2.62
56	3.13	2.38	0.88	2.63	4.63	2.88	3.88	4.00	3.63
59	2.38	3.38	1.88	2.38	4.63	3.13	3.00	2.28	1.00
60	4.25	2.75	2.00	2.00	5.25	2.38	1.25	4.25	3.75
69	4.50	2.13	3.88	2.63	5.13	3.50	2.25	2.75	2.50

Wait-list Condition

ID	ACTV	ADAPT	APPRO	DISTR	INTEN	MOOD	PERS	RHYTHM	THRESH
3	3.62	3.71	4.00	2.87	3.00	4.28	2.25	2.07	1.50
4	5.50	1.87	2.37	3.37	5.50	2.87	2.87	2.62	3.87
14	1.75	3.25	2.37	3.50	4.12	3.37	3.25	3.75	1.87
18	3.00	3.62	3.62	2.12	3.87	2.71	4.00	4.14	0.87
24	3.87	2.75	2.25	2.50	5.00	4.12	3.00	3.12	0.37
25	3.62	2.50	2.12	2.75	4.37	3.25	3.12	3.75	2.50
40	4.87	4.00	3.12	2.37	3.62	5.12	3.12	2.75	4.00
41	4.12	2.87	1.87	1.50	4.75	2.25	3.62	4.37	1.50
42	3.50	1.25	0.87	2.12	6.00	3.57	3.75	3.37	0.75
44	5.62	1.85	2.25	0.37	6.00	1.87	3.37	1.25	2.25
45	3.87	1.37	1.50	3.75	3.37	3.25	2.87	4.12	0.62
50	3.50	3.50	2.75	2.87	3.75	4.50	2.87	2.62	2.37
51	4.25	4.50	3.87	3.12	4.50	3.37	3.62	4.00	2.75
53	3.63	3.25	4.00	3.50	4.63	4.38	3.75	3.63	2.25
55	3.50	3.13	4.63	2.88	3.63	2.57	2.88	3.88	2.63
61	4.38	3.50	3.25	2.00	5.13	4.13	3.88	4.38	3.63
65	3.88	3.00	3.63	2.00	5.25	2.88	3.75	3.43	1.50
66	3.63	3.13	1.88	2.38	4.81	4.00	4.00	3.75	3.00
68	3.50	3.13	1.75	2.63	4.63	3.50	3.63	4.75	0.88

Post-Treatment Assessment: Temperament VariablesTreatment Condition

ID	ACTV	ADAPT	APPRO	DISTR	INTEN	MOOD	PERS	RHYTHM	THRESH
5	4.62	4.25	4.87	2.50	4.75	3.50	5.25	3.12	4.75
6	3.50	2.50	3.75	2.37	5.12	3.50	3.75	2.00	2.25
10	2.87	2.50	6.37	3.25	4.37	3.62	3.62	4.62	2.50
11	5.62	3.75	2.50	2.00	4.62	4.00	3.75	4.62	3.62
12	4.50	1.50	6.25	1.87	5.62	3.00	3.50	5.00	2.50
13	3.12	3.00	1.37	2.87	3.62	3.12	3.75	5.00	3.25
23	4.12	2.50	1.50	1.62	5.50	3.12	4.00	5.25	1.87
27	3.87	4.37	3.62	3.62	4.37	2.87	3.62	3.12	2.37
28	3.75	2.50	1.13	1.75	3.63	2.63	3.13	3.50	2.75
29	3.62	3.00	2.00	1.87	4.37	3.57	2.87	2.62	3.25
33	3.37	2.87	2.62	2.87	4.50	3.00	3.37	3.00	1.37
35	4.37	2.28	0.75	2.25	4.75	1.37	3.50	2.12	2.37
36	3.50	1.62	2.12	1.75	5.50	2.25	3.75	4.25	2.12
37	4.37	3.62	2.87	2.25	4.62	3.12	2.87	3.75	1.37
43	4.62	4.37	4.25	2.25	4.75	3.75	3.00	3.87	3.62
47	4.00	4.00	5.12	0.87	5.50	4.25	4.87	4.12	2.25
49	4.25	2.87	0.87	1.62	5.12	3.25	3.50	4.75	2.62
56	3.13	2.38	0.88	2.63	4.63	2.88	3.88	4.00	3.63
59	2.38	3.38	1.88	2.38	4.63	3.13	3.00	2.28	1.00
60	4.25	2.75	2.00	2.00	5.25	2.38	1.25	4.25	3.75
69	4.50	2.13	3.88	2.63	5.13	3.50	2.25	2.75	2.50

Wait-list Condition

ID	ACTV	ADAPT	APPRO	DISTR	INTEN	MOOD	PERS	RHYTHM	THRESH
3	3.62	3.71	4.00	2.87	3.00	4.28	2.25	2.07	1.50
4	5.50	1.87	2.37	3.37	5.50	2.87	2.87	2.62	3.87
14	1.75	3.25	2.37	3.50	4.12	3.37	3.25	3.75	1.87
18	3.00	3.62	3.62	2.12	3.87	2.71	4.00	4.14	0.87
24	3.87	2.75	2.25	2.50	5.00	4.12	3.00	3.12	0.37
25	3.62	2.50	2.12	2.75	4.37	3.25	3.12	3.75	2.50
40	4.87	4.00	3.12	2.37	3.62	5.12	3.12	2.75	4.00
41	4.12	2.87	1.87	1.50	4.75	2.25	3.62	4.37	1.50
42	3.50	1.25	0.87	2.12	6.00	3.57	3.75	3.37	0.75
44	5.62	1.85	2.25	0.37	6.00	1.87	3.37	1.25	2.25
45	3.87	1.37	1.50	3.75	3.37	3.25	2.87	4.12	0.62
50	3.50	3.50	2.75	2.87	3.75	4.50	2.87	2.62	2.37
51	4.25	4.50	3.87	3.12	4.50	3.37	3.62	4.00	2.75
53	3.63	3.25	4.00	3.50	4.63	4.38	3.75	3.63	2.25
55	3.50	3.13	4.63	2.88	3.63	2.57	2.88	3.88	2.63
61	4.38	3.50	3.25	2.00	5.13	4.13	3.88	4.38	3.63
65	3.88	3.00	3.63	2.00	5.25	2.88	3.75	3.43	1.50
66	3.63	3.13	1.88	2.38	4.81	4.00	4.00	3.75	3.00
68	3.50	3.13	1.75	2.63	4.63	3.50	3.63	4.75	0.88

Index of Variable Names and Codes

PCRELAT	Parent-Child Relationship (Cleminshaw Guidubaldi Parent Satisfaction Scale)
ATTACH	Parent Attachment (PSI)
COMP	Parent Sense of Competence (PSI)
RESTRICT	Restrictions Imposed by Parental Role (PSI)
DEPRESS	Parent Depression (PSI)
STAI	Trait Anxiety (State Trait Anxiety Inventory)
INT MOM	Mother-rated Internalizing Behavior Problems (CBCL)
EXT MOM	Mother-rated Externalizing Behavior Problems (CBCL)
PDR MOM	Mother-rated Parent Daily Report
INT DAD	Father-rated Internalizing Behavior Problems (CBCL)
EXT DAD	Father-rated Externalizing Behavior Problems (CBCL)
PDR DAD	Father-rated Parent Daily Report
DISC	Family Discipline and Control (Cleminshaw Guidubaldi Parent Satisfaction Scale)
IFS	Modified Impact on Family Scale
SPREL	Relationship with Spouse (PSI)
ACTV	Activity Level
ADAPT	Adaptability
APPRO	Approach vs Withdrawal
DISTR	Distractibility
INTEN	Intensity

MOOD	Mood
PERS	Persistence
RHYTHM	Rhythmicity/Regularity
THRESH	Threshold of Responsiveness
AGE	Child Age
MAGE	Maternal Age
PAGE	Paternal Age
MED	Maternal Education (in years)
PED	Paternal Education (in years)
SIB	Number of siblings
INC	Income (in thousands of dollars)
MS	Maternal Marital Status (1=Married; 2=Divorced/Separated; 3=single; 4=Living with child's father)
RACE	Maternal Race (1=White; 2=Black; 3=Mixed)
SEX	Child's Sex (1=Male; 2=Female)

APPENDIX C

Temperament-Focused Parent-Training: Outline of a Psychoeducational Program for Parents with Temperamentally Difficult Preschoolers

Overview of Parent-Training Program

The following outline provides a detailed description of a training program for parents of temperamentally difficult preschool children. Based on the goodness-of-fit notion, the training is geared toward utilizing an understanding of child temperament to enhance the match between child characteristics and parental demands. The program is largely based on the approach developed by Stanley Turecki, a child psychiatrist at Beth Israel Hospital in New York, and presented in The Difficult Child (Turecki & Tonner, 1985). However, his program has been modified both to include recommendations offered in the works of Thomas and Chess and to reflect my understanding of child temperament and behavior management.

The initial phase of the program is geared towards familiarizing parents with the nature of child temperament and its role in understanding child behavior. This is addressed as regards understanding both children in general, and the difficulties experienced in one's own family. An emphasis will be placed on understanding the specific ways that temperament can be used to describe an individual child's behavior. For instance, an "unadaptable" child may be hesitant with new people, but love new and different toys.

The second phase involves the acquisition of specific management techniques for a range of behaviors associated with temperament characteristics as well as the development of a consistent approach to problematic, non-temperament behaviors. All of the techniques presented are conceptualized as general suggestions which are not expected to suit everyone. Additionally, these suggestions in no way exhaust the available options. Group members are advised to make changes in accordance with their own needs and styles so long as they stay within the conceptual framework of the goodness-of-fit model. Members are encouraged to discuss proposed modifications both to facilitate sharing of ideas among group participants and to check that approaches used by group members are congruent with this model.

Session #1 Introduction to Temperament

A. Opening

1. Introduce self and give brief overview of program
2. Have group members introduce themselves and speak for a short time about their reasons for coming for the program

B. Temperament

1. Introduce idea of temperament by reading a couple of vignettes describing children with combinations of temperamental traits which can at times make them difficult to parent.
 - a. Ask group about any of these characteristics which they see in their children. As they discuss the behaviors they see, write the relevant temperament traits on the board.
2. Temperament: Refers to the "how" or the style of behavior. It is different from ability, which is the "how well" of behavior or motivation, which is the "why".
 - a. Ex. Two children may choose to play the same game, and play it equally well and still differ in their styles. For instance: in how much they run around; how upset they are if the rules are changed; or how easily they can leave the game if you call them in for dinner.
 - b. Temperament traits are fairly consistent ways of responding to situations and appear to be largely inborn in that these styles are apparent very early.
3. Brief History: Work in this area was begun approximately 30 years ago by two child psychiatrists, Thomas and Chess. They began their work because they were dissatisfied with the predominant view that children are born as "blank slates", such that everything they become is the responsibility of the parents, teachers, and child care professionals.
 - a. Saw differences in children too early to attribute them to variability in parental handling
 - b. As clinicians they were aware that not all behavior problems could be related to parental behaviors
 - c. Objected to the tendency which grew out of a "blank slate" approach to blame the mother for all behavioral or psychological problems

4. Identified Nine Dimensions of Temperament: As go over these refer to list of behaviors that parents identified earlier. Give handout on temperament dimensions
 - a. Activity Level
 - b. Regularity in biological functioning: Predictability in patterns of sleep and hunger
 - c. Approach vs Withdrawal to new situations
 - d. Adaptability: Ease with which child comes to adjust to new or changed situation after the initial response
 - e. Threshold of Response to sensory stimulation: sensitivity to sensory stimulation such as the feel of materials, bright lights, texture of food, noise
 - f. Mood: amount of pleasant, happy, friendly behavior vs crying, complaining, unpleasant behavior
 - g. Intensity of reaction: energy level of response
 - h. Distractibility: How easily is the child distracted from what he/she is doing.
 - i. Persistence: Amount of time the child will stay with one activity, particularly in the face of events that make it difficult to continue.
5. When children display behaviors that are at one extreme of many of these dimensions, they can be difficult to parent as was the case in the vignettes we read earlier. Each of you were invited to join the group both because your child demonstrates some of these behaviors and because you reported finding that these behavioral styles make parenting more difficult for you.
 - a. However, each of these temperament characteristics that make the child seem difficult in one situation can be an asset in a different situation or stage of development.
 - b. Ask group to identify how each temperament trait may be easy or difficult depending on the situation. Supply examples that they miss.
6. These children, even at their most difficult, are normal. Demonstrating temperamental traits that can make parenting difficult does mean that the child is emotionally disturbed, brain damaged, hyperactive, or in anyway "abnormal". Relatedly, it also doesn't mean that you've been a bad parent.
7. Children with traits that can make parenting more difficult are not doing so on purpose. Their temperament make-up means that a variety of situations are harder or less enjoyable for them than they may be for children with a different set of characteristics. As their parents, you bear the

brunt of their difficulties with them. It will be important to come to see that they are sharing their difficulties with you, not aiming to create them for you, as it may feel at times.

8. The concept of temperament is important for several reasons
 - a. It helps us to recognize that the child has traits from the beginning which influence the way others will respond to him. For example, its easier to enjoy a child who appears happy to see you and is responsive to your attention.
 - b. Children with temperament traits that make parenting difficult have been shown to be more at risk for developing behavior problems than are children with easier temperament patterns. However, as we will discuss in more detail next week, this does not mean that all children with difficult temperaments develop behavior problems.

B. Closing

1. We've been speaking today about temperament traits and how they may be useful in helping us understand child behavior. Key points that have been made are that temperament refers to traits which are inborn and relatively stable, and that these traits both influence care-giver response to the child and increase the likelihood of behavior problems.
2. However, I want to emphasize before we leave that these characteristics are not unchanging. The way that you as parents respond to your child, will influence his behavioral style as will other aspects of his environment. I don't want to give you the impression that these traits never vary across time or situations. We will talk next week about how your response to your child influences his development within the constraints posed by his temperament make-up as well as about the experience of parenting a child with temperament traits that make the task more difficult.
3. Give group notice that after the following session they will begin a week of intensive evaluation of their own situation. They will need to have time without a great deal of external commitments. Tell them to try to plan their schedule with this in mind.
4. Homework. Complete Adult Temperament Questionnaire and review your answers to the questions tapping each of the temperament dimensions. This should

give you a better feel for the meanings of these traits and strengthen the understanding that they reflect acceptable individual differences. We'll talk about what you've learned about your own temperament at the beginning of the next session.

Session #2: Goodness of Fit Impact on Family

A. Opening

1. Spend initial part of session reviewing homework.
2. Address questions about the topic covered in previous session.

B. Goodness of Fit

1. As we began to speak about last week, it is essential to keep in mind that while each child has a particular style, his behavior and development are not set in stone. Parental responses can either lessen or increase the likelihood of further difficulties.
2. Many people refer to the "Goodness of Fit" between child and parent characteristics, that may influence the level of stress in the environment. By this we mean how good a match exists between the child's capabilities and the demands that are placed on him/her.
 - a. Fit also relates to how acceptable the child's behavior is to the parents. For example, a very active child will fare better in a casual, comfortable home than in one where priceless collectibles are placed on every shelf.
 - b. Fit doesn't imply a one-to-one correspondence between child and parent characteristics. For instance, the relationship between a parent and child both of whom demonstrate intense negative moods doesn't have the potential to be particularly smooth. On the other hand, a parent with fairly mild moods may enjoy the child's intense expressions and may therefore have a good fit.
3. The goal of the program will be to maximize the fit between child characteristics and parent demands. It needs to be noted that the goal is not to eliminate stress from the relationship; we would be bound to fail since stress is a natural part of development. The aim is to eliminate the unnecessary and potentially detrimental stress which develops out a poor fit.

C. Impact on Family

1. Have group discuss what it is like for them to parent their children. What feelings/thoughts do they have?
 - a. After they have described their feelings add to the list with other feelings/thoughts that have been reported in literature: perceived lack of competence, decreased feelings of attachment to the child, feelings of being restricted by the parenting role, decreased ability to maintain prior lifestyle, difficulty understanding the child's wants, guilt, anxiety, depression, exhaustion, anger.
2. How did these feelings develop? Have group describe the process. Supplement with Turecki's description as needed.
 - a. Initial expectations for child behavior aren't realized.
 - b. Attempts at changing behavior/making child happy are unsuccessful
 - c. Receive criticism from spouse, relatives, friends
 - d. Above feelings develop and make it harder to respond to your child's behavior neutrally. When you're feeling badly its hard to give the child the patient, flexible care that she/he requires. May alternate between rigidly adhering to one method and fluctuating widely in discipline styles. This leads to increasingly ineffective management, greater child problems, and an intensification of feelings. Discuss this as a cycle.
3. Ripple Effect: The impact of having a child who is hard to parent has been compared to throwing a stone into a pond. The first splash, the greatest impact, is on the child's interaction with the mother. But that stone also creates concentric ripples that spread out until the whole pond (family) is disturbed. These disturbances are then felt by the child who as we mentioned before, begins to have and create more problems.
 - a. Where do fathers (second caretaker) fit in? Have group describe the fathers' response to the children, to their management of their children. What influence has it had on their marriages? Add to description with information from literature: feels shut out; questions mothers' approach; mother has limited energy for him; mother resents father's lack of understanding/assistance.

- b. Influence on siblings: have group describe their experiences. Add from literature: resentful of attention to other difficult child; may feel neglected or left out; worry about conflicts between parent and other child; begin to misbehave in order to get more attention; parent may demand more maturity and independence than should be expected of sibling.
- c. Influence on target child: have group describe their experiences. Add from literature: behavior is worsening; poor self-esteem; always seems to be fighting with you.

D. Closing

1. Despite similarities in the feelings and experiences we've discussed, each family situation is different. It is essential to have a very clear understanding of your own situation in order to make effective changes. The homework is an intensive evaluation period in which you will familiarize yourself with your child's behavior, his temperament, and the link between the two. For that reason, this will probably be the most important assignment of the program, so do it with care.
2. During the week you should: SIMPLIFY YOUR LIFE by keeping your schedule as free as possible. AVOID EXCESSIVE PUNISHMENT: decrease threats, yelling, spankings, as much as possible. This will be difficult but remember the goal is to observe and understand the behavior.
3. Make BEHAVIORAL PROFILE on sheet provided (see handout for example). Include all problem behaviors and situations in which they occur.
4. Review your answers to the temperament questionnaire you completed for your child. See how the child fits on each temperament dimension. Write up notes on the TEMPERAMENT PROFILE provided.
5. A day or two before our next session, go back over the two profiles and ask yourself whether you can relate the behavior problem to a temperament dimension. If you can see a link between the two, write the temperament dimension(s) next to the behavior. (See handout for example)
6. Bring all profiles with you next week so we can discuss them.

Session #3: Introduction to Management Component
Deciding whether undesirable behavior is
temperament-related
Labeling

A. Opening

1. Spend initial part of session reviewing homework and questions from last week.
2. In what way were concepts/skills helpful? What problems arose?

B. Introduction to management component

1. The goal for the remainder of the program is to establish effective discipline which takes into account the relationship between temperament characteristics and behavior.
2. This is a challenging phase of the program because it is difficult to alter approaches to discipline even when you can readily acknowledge that things aren't working as well as you would like.
 - a. It's scary to try something new and sometimes at the beginning it feels like giving in to your child and letting him/her rule the household.
 - b. Aim is to help you replace power struggles, hitting, yelling, and saying "no" more than is necessary, with a calm effective discipline that will leave you punishing less but being more successful when you do.
 - c. Spend a few minutes reviewing present discipline. Use handout on discipline questionnaire to address ineffective attempts.
3. Focus is on decreasing instinctive and emotional responses to your child's behavior. You will learn to stand back, think, evaluate, and then act.
4. Step 1 is to remain neutral. When your child misbehaves the first step is to remind yourself that you must think, not feel.
 - a. Don't take it personally. When you find yourself saying "why is he doing this to me?", take it as a clue that you're taking it too personally.
 - b. Focus on the behavior, not on motivations or attitudes

C. Is it Temperament

1. Step 2 is to ask yourself, "Is it temperament?"; if you can relate a behavior to a temperamental issue you will be in a better position to know how to handle it. (Specific techniques for dealing with different temperaments will be discussed in the weeks to come. We'll deal with what to do if it isn't temperament later).
 - a. When you recognize the relationship of temperament to behavior you will understand that the behavior is hard for your child to control.
2. Helpful to attend to what set off behavior, in attempting to recognize whether the behavior could be related to temperament.
 - a. What might some examples be?

D. Labeling

1. Step 3 is labeling. Labeling means identifying the temperamental basis for a behavior, putting a name to it, and either sharing this information with the child or using it to alter your attitude and response to the child's behavior.
 - a. Reminds you to remain neutral and think temperament
 - b. Helps increase your and your child's understanding of his behavior.
 - c. Helps you see that the child is not being intentionally willful or hurtful.
2. Begin by thinking of the issue of temperament and then translate your understanding into simple phrases for the child.
 - a. For example, "I know that you don't always feel sleepy at your regular bedtime".
 - b. Be specific, neutral, and unemotional. Tone of voice is very important. This is the hard part because you will become upset at your child's behavior. It will become easier over time as it becomes habitual.
3. The child will come to see that you understand him/her if this information is provided in neutral, friendly way.
4. Children learn about themselves from these labels. For example, an unadaptable child in a new situation can come to say "I'm not used to it yet. Give me a little more time."

5. Goal is to find expressions/words that have meaning to you and your child.
 - a. Go over examples (see attached sheet).
 - b. What might be some more examples?
 - c. How do these responses compare to your more typical responses? How might the effects be different (positive and negative)?
6. Labeling is the foundation of a new approach to managing difficult behavior. It will be used in conjunction with techniques for handling specific behavior problems.
7. Thinking about behavior as being related to temperament also helps you decide whether the issue is important enough to worry about. For example, if having to wear a frilly new dress is upsetting to your child (adaptability; threshold), are you sure that you want to insist?
 - a. The behavior that is considered essential to change will vary by family. It's O.K. if you think something is very important even though another person may not. What is necessary to keep in mind is to evaluate in each situation whether it is important enough to try to change.

E. Closing

1. Warn parents that these steps will be difficult at first and reassure them that it will become easier over time. Tell them that it is not expected that they will remember to do this every time.
2. Have parents identify the temperament traits which they will be labeling, i.e., those which are problematic for them.
3. Homework:
 - a. Place label sheet on refrigerator
 - b. Use each label at least one time per day if situation arises. Record use on homework sheet.
 - c. Continue to look for relationships between temperament characteristics and behavior problems.

Session #4 Wild and Restless Behavior Unpredictable Behavior

A. Opening

1. Spend initial part of session reviewing homework and questions from last week.

2. In what way were concepts/skills helpful? What problems arose?

B. Dealing with wild and overactive behavior

1. Read brief scenario describing behavior and ask group to label the contributing temperament characteristics: high activity level, high distractibility
2. Prevention:
 - a. Provide child with a range of activities. Try not to be upset if child plays with several toys simultaneously. Remember how much you appreciate his distractibility when you need to get his attention.
 - b. Praise/reward quiet indoor activity
 - c. Allow time for "BLOWING OFF STEAM". Label for child that you know he gets "antsy" when he's indoors all day and suggest that you "move around". Try one of the following:
 - 1) Water Play. Place child in bathtub with bath toys and let them splash a bit. This of course assumes that you don't mind a wet bathroom
 - 2) Go to the park, outdoor yard, or basement and let him run.
 - 3) Put on music and dance
3. Early Intervention. Let's say that despite your best planning, your child starts to get wild. The key idea here is early intervention. That means that you need to identify the point when your child starts to be wild. Sometimes its hard to tell. What patterns do you see in your child? Watch your child closely so they you can be more sensitive to his/her progression. Need to find a balance between the goal of preventing escalation and the problem of becoming overvigilant and ready to distract at the first sign of excitement.
 - a. Once you've identified the beginnings of wild behavior, label it for the child the way that you have been doing and tell him that this means it is "TIME TO COOL OFF".
 - b. The following COOL OFF activities are recommended:
 - 1) Read a book or listen to a record together
 - 2) Have child come and sit in your lap
 - 3) Watch a favorite T.V. show
 - 4) Sit down to have a special snack.
4. Later Intervention. Well what happens if you've missed the warning signs and your child is now really wild. In this case the cooling off involves

removing the child from the situation entirely until he/she settles down. Try to designate a specific "cool off place" that the child stays until he/she is sufficiently calm. In this case, don't even talk to the child except to say that he/she is "revved up" and needs to stay in the "cool off place" until he/she settles down.

- a. Discuss characteristics of a good "cool off place": someplace quiet without a lot of stimulating events; someplace that doesn't have dangerous or valuable objects that he can either; someplace within sight/hearing range
- b. We'll discuss at a later point how to handle tantrums.

C. Dealing with Unpredictable behavior

1. Read brief scenario describing behavior and ask group to label the contributing temperament characteristic: irregularity in biological functioning, intense and negative moods (Note: The situation will be less difficult if the child's mood isn't a problem.)
 - a. This is particularly bothersome for many families around bedtime and mealtime. Causes a great deal of conflict, punishment, and escalation.
2. Key is to separate BEDTIME from SLEEPTIME, MEALTIME from EATING TIME
3. As a parent you have a right to establish a bedtime, but it is unfortunately not possible to establish a sleeptime.
 - a. At bedtime child is to go into bed with all lights off except for a nightlight. Child is allowed to have a couple of small toys or books in bed with him and/or to have soft music playing. Child is NOT allowed to leave the bed.
 - 1) Toys may be treated as a privilege which will be taken away if child gets out of bed.
 - 2) Result is a consistent bedtime; child will go to sleep when tired.
 - b. Have a "WIND DOWN" time before bedtime such that there is a consistent ritual of engaging in quiet activities for one hour before bedtime. It is unrealistic to expect a child to go from high activity to sleep without a transition.
4. Re meals: If you value a family meal time, then insist that child come to table when the family

eats. However, he/she shouldn't have to eat at this time. Use your judgement regarding how long child should be expected to sit at table; A highly active child may have trouble sitting for more than a few minutes.

- a. Allow child to eat when he is hungry; this is eating time. However, you don't need to become a short-order cook: prepare sandwiches/soup; refrigerate meals so that they just have to be heated.

D. Closing

1. Have parents identify the problem that they are going to address this week.
2. Tell parents to explain new rules to the child at a calm time before they implement the plan.
3. Homework. Tell parents to try to use the new approach consistently. Emphasize the need to give it an adequate trial before evaluating if changes are needed. Have parent record on homework sheet whenever they use the approach as well as difficulties that arise.
4. Reassure parent that it will take a little while to become experts at the new approach and not to be upset if they sometimes respond in their more usual fashion.

Session #5 : Dealing With Change Not Listening

A. Opening

1. Spend initial part of session reviewing homework and questions from last week.
2. In what way were concepts/skills helpful? What problems arose?

B. Helping child to deal with change

1. Read brief scenario describing behavior and ask group to label the contributing temperament characteristics: initial withdrawal, poor adaptability, intense and negative moods (Note: The latter two may not be present.)
 - a. This is a particular problem due to societal standards which place a high value on independent behavior. Many parents feel embarrassed of their children's timidity.

2. One key technique is PREPARATION. You can ease the difficulty of facing new situations (places, people) by preparing your child in advance.
 - a. Tell child about approaching event.
 - b. Label for child how his temperament will affect how he feels/behaves in this situation
 - c. Provide child with reassurance. This can be either a statement regarding how he can deal with his feelings or a reminder of how he adjusted in the past.

Examples: We are going to a birthday party this afternoon and I know its new for you so if you want to stay close to me until you're used to it, that's o.k.

We are going to a birthday party this afternoon and I know that it may be hard for you at first. Do you remember how much fun you had last time at Susan's party? You usually have fun once you get used to it.

- d. Distinguish between PREPARING and OVERWARNING. The latter occurs when you're anxious/angry and find yourself either: 1) repeatedly telling the child what will happen and how he should respond or 2) explaining what will occur in excruciating detail. Overwarning will alert the child to your anxiety. Keep in mind that you can't expect a child to feel calm when you're behavior tells him that there's cause for concern.

3. A second important point is to INTRODUCE NEW THINGS GRADUALLY

- a. Decide which new things are important for the child to get used to. Don't overload the child with lots of new things. Does it really matter if she wears the same corduroy pants three times a week?
- b. Example. When you buy a new dress for your child let it hang in her closet for a couple of days. Then let her look at it for a couple of days. Ask her if she would like to touch it? After a week, see if she'd like to try it on? In other words, go at her pace.

4. Dislike of new things may also relate to low sensory threshold.

- a. Be sensitive to materials, food textures, colors... that child doesn't like. Make exposure to these things very gradual. Remember that you might not like it if someone made you eat a whole cup of lima beans either.

5. Remembering that your child will NEED TIME TO GET USED TO IT is also important for you.
 - a. Prepare yourself for your child's response. Tell yourself that he doesn't like new things and that it takes him time to warm up to them.
 - b. Remember that what you think of as routine may not be so for your child. For example, every friend that you invite to the house is a NEW person; it doesn't work to think about it as "my child doesn't need to be prepared for this guest because I had company just yesterday".
 - c. It will also help keep you from feeling as badly when he doesn't initially love the new toy that you spent hours picking out. It may ease some of the disappointment if you try to remember that he may love it in a week, just like he did with his last birthday present.
6. Child as Mentor. The trick here is to have your child teach a doll/stuffed animal how to deal with new situations.
 - a. Child can take doll to "scary" places to teach her how to deal with them.
 - b. In teaching the doll, the child develops a sense that he can handle the situation.

C. Dealing with a child who Doesn't Listen or Forgets

1. Read brief scenario describing behavior and ask group to label the contributing temperament characteristics: high distractibility
 - a. Distractible children have trouble paying attention when they're not interested. This is a problem for many parents largely because this behavior is frequently interpreted as deliberate noncompliance or willfulness.
2. One helpful approach is to ESTABLISH EYE CONTACT before conveying information or giving a command. You can say: I want you to look at me and listen to what I have to say.
 - a. Use a neutral tone of voice
 - b. Remember to praise his/her looking at you
3. Give specific, single step commands. Young children can't keep large or multistep commands in mind.
 - a. Example: Say, "Put the tinker toys in the box." After he/she has done so, you can say "Put the box in the closet". This is in comparison to: "Put the tinker toys away" or "Put the tinker toys in the box and then put the box in the closet".

- b. Remember to give specific and enthusiastic praise after EACH command that the child follows.
- 4. To deal with forgetful behavior establish specific places for likely to be lost items.
 - a. Label for the child that you know it is hard for him/her to remember where he/she places things.
 - b. Tell him/her that to help him/her remember, from now on school supplies (lunch box, extra clothes...) always go _____ (some place that you specify).
 - c. Remind child to place objects there as soon as he/she gets home and provide praise for doing so.
- 5. Deal with a distractible child as you would a car that takes time to warm up. If you allow time for lost shoes and dawdling dressers you'll be less aggravated and less likely to punish the child for nonwillful, distractible behavior.
- 6. As before, PRAISE persistent and nonforgetful behavior.

D. Closing

- 1. Have parents identify the problem that they are going to address this week.
- 2. Tell parents to explain new rules to the child at a calm time before they implement the plan.
- 3. Homework. Tell parents to try to use the new approach consistently. Emphasize the need to give it an adequate trial before evaluating if changes are needed. Have parent record on homework sheet whenever they use the approach as well as difficulties that arise.
- 4. Reassure parent that it will take a little while to become experts at the new approach and not to be upset if they sometimes respond in their more usual fashion.

Session #:6 Dealing with Locked in Behavior
Dealing with Temper Tantrums

A. Opening

- 1. Spend initial part of session reviewing homework and questions from last week.

2. In what way were concepts/skills helpful? What problems arose?

B. Dealing with locked in behavior

1. Read brief scenario describing behavior and ask group to label the contributing temperament characteristics: high persistence/low distractibility, low sensory threshold, low adaptability
2. Key point here is to sensitively, but definitively END THE CYCLE. Need to recognize that you are not making either yourself or your child happier by continuing to try to make things more comfortable. Some parents continue because of fear of tantrums; remember that you have no guarantee that the child won't tantrum if you tie his shoes 9 times instead of 2.
 - a. Before beginning task (ex., tying shoes), label the problem for the child: "I know that sneaker laces sometimes don't feel right to you but if I tie them over and over, you will just get more and more upset. So from now on, I will retie your sneakers twice, and if they still don't feel right you'll wear something else. (If he/she absolutely has to wear these shoes for some reason, end the statement by telling him/her that he/she will have to wear them anyway).
 - b. Because there is a threshold issue here you do want to try to make the laces more comfortable (looser, tighter) when you redo them.
3. A related problem may develop in any number of situations with a child who has negative moods and gets locked into complaining. As with the previous situation there is nothing to be gained from letting a child complain indefinitely. It will only worsen both your and your child's mood.
 - a. Remind yourself that your child tends to have negative moods. This will help you to be less aggravated and less blaming of yourself
 - b. Acknowledge child's feelings so that he/she knows he's/she's been heard but then firmly tell him/her that the choices are to either: talk nicely, stay quiet until he/she feels better, or complain in his/her room.
 - c. Praise compliance. Also you may want to praise positive speech.
 - d. Also a way of sometimes preventing complaints is to give child a choice between two options that are both acceptable to you.

4. "Locked in" behavior is also a problem when you need a persistent child to change tasks. A useful tool here is the CHANGING CLOCK (Digital clock). Helps child prepare for change.
 - a. Clock should have no other use in house and child should know that this is his clock to help him/her change activities.
 - b. Label for the child that you know its hard to change from one activity to another and that this will make it easier. Give an example.
 - c. When you need the child to change tasks show her what time the clock says. Then say, when the last number changes from ___ to ___ (about 5 minutes) you must come into the house to have lunch.
 - d. As child gets older, may learn to anticipate these changes and ask questions such as "how much longer do I have?"

C. Dealing with Temper Tantrums

1. Read brief scenario describing behavior and ask group to label the contributing temperament characteristics: Negative mood and high intensity are primary contributors; other characteristics depend on situation: adaptability, persistence
 - a. Tantrum defined as outburst of anger, crying, or screaming.
2. Prevention.
 - a. Learning to recognize situations that are difficult for your child and developing ways to decrease those demands will reduce the frequency of situations in which the child's behavior escalates to tantrums
 - b. Using the "cool down" place when you see initial signs of tantrum.
3. Steps for dealing with tantrums when they arise
 - a. Don't give in to child's demand; this will increase the frequency of tantrums. Having a consistent response is most important in decreasing the frequency of tantrums.
 - b. Label for the child that you understand that he/she is upset about _____ and either remind him/her of how that situation resolved itself in the past (if appropriate) or just indicate that he/she will have to deal with the situation even if it is difficult. For example: I know that this dress isn't as comfortable as your pajamas but you need to wear it for a little while until we get home from grandma's house.

- c. If your child is easily distractible, try to shift his/ her attention away from the upsetting event. Don't offer something too desirable or the child may begin to tantrum in order to get treats
- d. If the child is not distractible take him/her to a designated time out place (his room; a chair) and tell him that he/her that he/she needs to stay there until he/ she is calm.
 - 1) Ignore all nondangerous behavior
 - 2) Respond to dangerous behavior with the minimal response that is feasible. If your child tends to engage in dangerous or destructive behavior during tantrums place him/her someplace where the potential for damage would be minimal and you can watch from the corner of your eye (ex. a chair in the middle of a room).

D. Closing

- 1. Have parents identify the problem that they are going to address this week.
- 2. Tell parents to explain new rules to the child at a calm time before they implement the plan.
- 3. Homework. Tell parents to try to use the new approach consistently. Emphasize the need to give it an adequate trial before evaluating if changes are needed. Have parent record on homework sheet whenever they use the approach as well as difficulties that arise.
- 4. Reassure parent that it will take a little while to become experts at the new approach and not to be upset if they sometimes respond in their more usual fashion.

Session 7: Consistent discipline or what to do when it isn't temperament

A. Opening

- 1. Spend initial part of session reviewing homework and questions from last week.
- 2. In what way were concepts/skills helpful? What problems arose?

B. Is it Important

1. If behavior isn't temperament-related, the next question is whether the behavior is really important.
 - a. One of the main reasons for ineffective discipline is that parents get so irritated with their children that they begin to respond to everything with annoyance.
2. Need to begin distinguishing between those behaviors that have to be dealt with and those that could be ignored without major repercussions.
3. First step is to develop a list (each caretaker develops his/her own list) of behaviors that trouble you the most. The behavior that objectively speaking you feel you have to change. Make list when you're feeling calm.
 - a. Include only important behaviors: What would happen if you ignored the behavior; how frequently is it occurring?
 - b. Be very specific and list only behaviors (not attitudes)
 - c. Don't project concerns into the future, i.e., what will happen if...; deal with today and worry about tomorrow when it arrives
 - d. Go back over your list and see if you stuck to both a, b and c.
 - e. Go over list with spouse (other caretaker) and negotiate for a joint list which includes behaviors that you both consider important (you can keep a couple of behaviors that only bother one of you if they are crucial).
 - f. Final list should contain 5-6 items (see handout for example).

C. Discipline

1. Choose three techniques for punishment and don't use any others (including yelling, threatening, overexplaining); For example: Time out for short time; withdrawal of privilege on one occasion; loss of tokens if you use a reward system
2. Be serious in tone and manner but don't overpunish. It doesn't have to be long or severe to be effective
3. Be clear about rules and consequences
 - a. Explain rules to child at a calm time. Be simple and specific. For example, you are not allowed to hit your brother; from now on if you hit him you will go to your room

4. When child misbehaves tell him he has broken the rule and must now...;
 - a. Don't give more than one warning.
 - b. Act quickly/don't overexplain or negotiate
 - c. Only punish for behavior on list

D. Planned Rewards

1. Way of increasing the behavior that you want from your child.
2. Rewards are given in a planned way following the completion of a specific act
3. Step one is to identify a behavior that you want the child to perform
 - a. set realistic and specific goals; if the task is large break it into smaller tasks
4. Negotiate a realistic reward with your child
5. Can be used to help child with morning or evening routine
 - a. Identify routine
 - b. Give child star for each time the routine is completed in order; place on chart
 - c. Arrange prize for set number of stars
6. Don't punish child for not doing planned behavior

D. Closing

1. Homework.
 - a. Make list of important behavior problems
 - b. Decide upon 3 discipline approaches
 - c. Don't begin use of new discipline approaches
 - d. Continue to use skills from past weeks. Mark down use on homework sheets

Session #8 Putting it All Together and Moving On

A. Opening

1. Spend initial part of session reviewing homework and questions from last week.
2. In what way were concepts/skills helpful? What problems arose?

B. Putting it all together

1. Step 1. Ask yourself "can I deal with it?" Pay attention to your general frame of mind.
 - a. If you're having a bad day, feeling down, just had a fight with your spouse, this may not be the time to try to be the model parent. Do as little as you can that will relieve the situation.
Example. If your child is tantrumming in the store, just forget the shopping and go home.
 - b. If you're feeling relatively O.K., then go to step 2.
2. Step 2. Frame the Behavior.
 - a. Be neutral and label the behavior to yourself. Remember label only the behavior not motivations or attitudes.
 - b. You are trying to categorize your child's behavior; have you seen anything like it before? If you need help look at your behavioral profile (should be on refrigerator for easy access).
3. Step 3. Ask yourself "Is it temperament/Can he help it"
 - a. Think about how you would label this behavior; look at temperament profile and label sheet for help (should be on refrigerator for easy access).
 - b. If its temperament, label situation for child and use the appropriate technique.
 - c. If it's not temperament, go to Step 4
4. Step 4. Ask yourself "Is it important"
 - a. Remember your list of important behaviors, is this on it?
 - b. Ask yourself if you can lose by doing nothing. If you decide that it isn't important, either ignore it or respond minimally and disengage (similarly to if you decided that you weren't up to dealing with his behavior in step 1)
5. Step 5. Effective Punishment. For times when you decide that it isn't temperament and is important.
 - a. Don't give more than one warning
 - b. Choose discipline approach quickly and use it without over explaining or negotiating; briefly state punishment and the reason for it.
Example. You know you're not allowed to throw your plate on the floor so go to your room until I tell you to come out.
 - c. Sound firm but unemotional

C. Practice with various scenarios

1. Read various vignettes.
 - a. How could situation have been prevented?
 - b. What can be done now to rectify it?

D. Expect unevenness in progress.

1. Try not to be too disappointed if after an initial period of improvement, your child's behavior backslides somewhat; the course of development is uneven with rapid spurts forward, plateaus, and regressions. Maintain your behavior and things will fall back into place.
 - a. In particular, expect periods of change to be stressful for your child and result in more difficult behavior. Try to prepare your child for these situations.
 - b. Look at initial behavioral profile every few months if you feel discouraged; may be surprised by how much things have improved.

E. Dealing with siblings

1. If the sibling is old enough to understand, explain the new routines to him/her so that he/she doesn't feel like the other child is being favored or getting away with things.
2. Use your new knowledge to help manage your other children's behavior as well
3. Make time for special activities with your other children if you find that their easier nature sometimes results in their being lost in the shuffle

F. Adult time

1. Many parents of difficult children tend to neglect themselves. You need time to yourself if you are to have the resources to deal effectively with your children.
2. As your child's behavior is improving, begin to schedule more time alone with your spouse, friends, relatives, and quiet time by yourself.

G. Dealing with schools

1. If your child experiences difficulties at school that you feel reflect his temperament find time to discuss them with the teacher.
 - a. Let the teacher know some of the techniques that have worked for you at home

2. There is a range in preschools as to the amount of structure vs free choice that is expected. Investigate whether a different setting would provide a better match for your child's style

H. Closing

1. Briefly review discipline techniques discussed in previous weeks.
2. Homework.
 - a. Begin use of discipline and reward systems. As before, tell parents to try to use the new approaches consistently. Emphasize the need to give it an adequate trial before evaluating if changes are needed.
 - b. Have parent record on sheet whenever they use the approach as well as difficulties that arise.

Session 9: Post-Assessment

A. Opening

1. Spend initial part of session reviewing homework and questions from last week.
2. In what way were concepts/skills helpful? What problems arose?
3. Address any general questions or concerns.
4. Get feedback about the program.

B. Post-Assessment

1. Have group complete self-report measures.
2. Indicate to them that you will be in touch during the following week to do PDR. If possible, arrange specific times to call.

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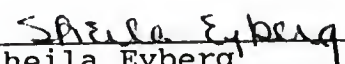
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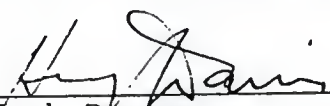
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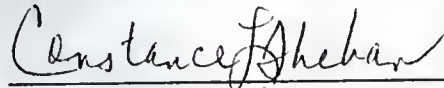
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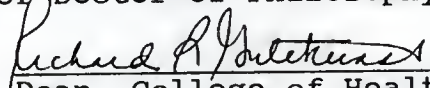
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